TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

No. 737.

MARGARET MYERS, EXECUTRIX OF JOHN MYERS, DECEASED, AND EUGENE S. EUNSON, APPELLANTS,

vs.

JOHN DUNBAR AND JEREMIAH HOPPER.

APPEAL FROM CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

FILED OCTOBER 4, 1876.

Cross-appeal. For record, see No. 123.

SUPREME COURT OF THE UNITED STATES.

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MARGARET MYERS, EXECUTRIX OF JOHN MYERS, DECEASED, AND EUGENE S. EUNSON, APPELLANTS,

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1 United States circuit court, southern district of New York. In equity.

MARGARET MYERS, EXECUTRIX OF JOHN MYERS, deceased, and Eugene S. Eunson, complainants & appellants,
vs.
JOHN DUNBAR AND JEREMIAH HOPPER, defendants & appellees.

The appeal of Margaret Myers, executrix of John Myers, deceased, and Eugene S. Eunson, complainants and appellants, above named, respectfully showeth—

That upon the twenty-sixth day of April, 1870, the above-named complainants filed their bill in the circuit court of the United States for the southern district of New York against the above-named defendants, alleging that the defendants had infringed the rights of the complainants therein, as secured to them by the original and extended letters-patent of the United States granted on the 23d day of May,
2 1854, to John Myers and Robert G. Eunson, the title to said letters-patent having become vested in the said complainants; and praying for an accounting and paying over to the complainants of profits and damages, and also that writs of subpœna and injunction might be issued against said defendants, their clerks, agents, servants, workmen, &c.

That said defendants appeared and answered said bill of complaint, and in said answer admitted, upon information and belief, the grant and extension of the letters-patent as alleged and set up in said bill of complaint; they alleged want of knowledge or information, save from the said bill of complaint, whether or not all the requirements upon said extension had been complied with; they also alleged want of knowledge or information, save from the bill of complaint, whether or not the
3 title to said original or extended patents had become vested in the complainants; they denied the utility and value of the inventions covered by said letters-patent; also, that the same had been brought into extensive public use, and that the public had acquiesced in or acknowledged the complainants' exclusive right to such inventions or any portion thereof; they also denied any infringement by *by* them of said letters-patent; they also denied that the inventors, as set up in said bill of complaint, were the original, true, and first inventors of the inventions therein set forth, but they alleged that the same and all material and essential parts of said several inventions had been known and used by many persons and at divers places, stating where and by whom such knowledge was had.

That a general replication was filed in said cause, and after tes-
4 timony had been taken the cause was argued by counsel for the respective parties.

That thereafter an interlocutory decree was made and entered in the cause, sustaining the said patents and adjudging the defendants infringers thereof, and directing a reference to a master to take the accounting prayed for in the bill of complaint; that such accounting was had before said master, who duly reported to the court; that said report was excepted to by both parties, and a hearing on said exceptions was had by the court.

That on the first day of June, A. D. 1874, a final decree was made and entered in the cause, wherein it was in substance adjudged that each

and all of said exceptions, by either party, be overruled, and that said report of said master be in all things confirmed; that the com-
5 plainants recover of the defendants the sum of nine thousand one hundred and twenty dollars and ninety-four cents, with interest thereon from the fourth day of February, 1873, amounting to the sum of six hundred and eighty-six dollars and thirty-two cents—making in all the sum of ninety-eight hundred and seven dollars and twenty-six cents; and that said defendants pay to the master the sum of five hundred dollars allowed to the master as compensation, less such sum as might have been paid or advanced to said master by the defendants, and that the complainants should have execution or other proper process for the said sum awarded to them.

Wherefore these appellants appeal from so much of said decree of said circuit court of the United States as overrules the exception to the master's report taken by the complainants, and respectfully pray
6 that the decree of the said circuit court and the bill, answer, pleadings, depositions, evidence, and proceedings in the said cause may be sent to the Supreme Court of the United States without delay, and that the Supreme Court will proceed to hear the said cause anew so far as the hearing of said complainants' exceptions to said master's report is concerned, and that the decree of the said circuit court may be in that respect reversed, with costs, and a decree made accordingly.

New York, Dec. 29, 1875.

WHITNEY & BETTS,
Complt. Solrs.

FREDERIC H. BETTS,
Counsel.

The foregoing appeal is allowed.

SAML. BLATCHFORD.

FEB. 24, 1876.

(Endorsed:) U. S. circuit court, south. dist. of N. Y. In equity. Margaret Myers, executrix, &c., et al., complainants and appellants, vs. John Dunbar et al., defendants, and appellees. Appeal, E., and A. D. No. 2, p. 363. Whitney & Betts, complts. solrs., 20 Nassau st., N. Y. Filed Feb'y 24, 1876.

7 United States circuit court, southern district of New York, second circuit.

MARGARET MYERS, EXECUTRIX OF JOHN Myers, deceased, and Eugene S. Eunson, complainants and appellants,
against
JOHN DUNBAR AND JEREMIAH HOPPER, defendants and appellees.

Know all men by these presents that we, Smith Dunning, jr., of the village of Keyport, in the county of Monmouth and State of New Jersey, and Mary S. Dunning, spinster, of the same village, county, and State, are held and firmly bound unto the above-named John Dunbar and Jeremiah Hopper in the sum of two hundred and fifty dollars, lawful money of the United States of America, to be paid to the said John Dunbar and Jeremiah Hopper; for the payment of which
8 said sum, well and truly to be made, we bind ourselves, our and

each of our heirs, executors, and administrators, jointly and severally, firmly by these presents. Sealed with our seals, and dated the first day of February, in the year of our Lord one thousand eight hundred and seventy-six.

Whereas the above-named Margaret Myers, executrix, &c., and Eugene S. Eunson have taken an appeal to the Supreme Court of the United States, to reverse so much of a decree lately rendered in the above-entitled suit by the judge of the circuit court of the United States for the southern district of New York as overruled complainants' exceptions to the master's report herein:

Now, therefore, the condition of this obligation is such, that if the above-named Margaret Myers, executrix, &c., and Eugene S. Eunson shall prosecute their said appeal to effect, and answer all costs if
9 they shall fail to make good their plea, then this obligation shall be void; otherwise the same shall be and remain in full force and virtue.

SMITH DUNNING, JR. [L. S.]
MARY S. DUNNING. [L. S.]

Sealed and delivered in the presence of—

UNITED STATES OF AMERICA,
Southern District of New York, ss:

On this 12th day of February, A. D., before me personally came Smith Dunning, jr., to me personally known, and also known to me to be one of the persons described in and who executed the foregoing obligation, and acknowledged the execution thereof.

EDWARD L. OWEN,
U. S. Commissioner for the Southern Dist. of New York.

UNITED STATES OF AMERICA,
Southern District of New York, ss:

On this 8th day of February, A. D. 1876, before me personally
10 came Mary S. Dunning, to me personally known, and also known to me to be one of the persons described in and who executed the foregoing obligation, and acknowledged the execution thereof.

JOSEPH GUTMAN, JR.,
United States Commissioner S. D. of N. Y.

UNITED STATES OF AMERICA,
Southern District of New York, ss:

Smith Dunning, jr., one of the persons mentioned in and who executed the foregoing obligation, being duly sworn, says that he is a citizen of the United States, residing therein; that he is a freeholder within the State of New York, and is worth the sum of five hundred dollars over and above all debts and obligations and property exempt by law from execution.

SMITH DUNNING, JR.

Sworn to before me this 12th day of February, 1876.

EDWARD L. OWEN,
U. S. Commissioner for the Southern District of New York.

11 UNITED STATES OF AMERICA,
Southern District of New York, ss:

Mary S. Dunning, one of the persons mentioned in and who executed the foregoing obligation, being duly sworn, says that she is a citizen of the United States, resident therein; that she is a freeholder within the

State of New York, and is worth the sum of five hundred dollars over and above all debts and liabilities and property exempt by law from execution.

MARY S. DUNNING.

Sworn to before me this 8th day of February, 1876.

JOSEPH GUTMAN, JR.,
United States Commissioner S. D. N. Y.

The foregoing bond is approved as to form and amount and the sufficiency of the sureties. Feb. 24, 1876.

SAML. BLATCHFORD, *J.*

12 (Endorsed:) U. S. circuit court, south. dist. of N. Y. In equity. Margaret Myers, executrix, &c., et al., complainants & appellants, vs. John Dunbar et al., defendants & appellees. Bond for costs in Supreme Court to defendants & appellees. Whitney & Betts, complts'. solrs., 20 Nassau st., N. Y. E. & A. D. No. 2, p. 363. Filed Feb'y 24, 1876.

13 United States circuit court, southern district of New York. In equity.

MARGARET MYERS, EXECUTRIX OF JOHN Myers, deceased, and Eugene S. Eunson, complainants & ap'ellants,
vs.
JOHN DUNBAR AND JEREMIAH HOPPER, Defendants & appellees.

It is hereby agreed, by and between the respective parties to the above-entitled suit, that the transcript of the record heretofore filed in the Supreme Court of the United States by John Dunbar and Jeremiah Hopper, defendants and appellants, versus Margaret Myers, executrix of John Myers, deceased, and Eugene S. Eunson, complainants and appellees, may be used on the appeal herein, and that both appeals be argued thereon together.

Dated New York City, Dec. 31st, 1875.

14 WHITNEY & BETTS,
Attys. for Complts. & Applts.
CHARLES F. BLAKE,
Atty. for Defts. and Appellees.

(Endorsed:) U. S. circuit court, south. dist. of N. Y. In equity. Margaret Myers, executrix, &c., et al., complainants & appellants, vs. John Dunbar, et al., defendants and appellees. Consent to use record already filed. E. & Appl. D. No. 2, p. 363. Whitney & Betts, complts'. solrs., 20 Nassau st., N. Y. Filed Feb'y 26, 1876.

15 U. S. circuit court, southern district of New York.

MARGARET MYERS, EXTX., &C., ET AL., complts. & appellants,
against
JOHN DUNBAR ET AL., DEFENDANTS & APpellees.
} Affidavit of service.

UNITED STATES OF AMERICA.
Southern District of New York, City and County of New York, ss:

James McMahon, being duly sworn, says that he is a clerk in the office of Whitney & Betts, the solicitors for the above-named com-

plainants; that on the 10th day of March, 1876, at No. 16 Murray st., New York City, he served the annexed citation on the Mess. Keller & Blake, solicitors for the defendants in this action, by delivering a copy of the same to the managing clerk of said Keller & Blake personally, and leaving the same with him. He further says that he knew
16 the person served as aforesaid to be the managing clerk of defts'. s'l'ors in this action.

JAMES McMAHON.

Sworn to before me this 11th day of March, 1876.
[L. S.] JAMES H. GILBERT,
U. S. Commissioner.

17 By the honorable Samuel Blatchford, one of the judges of the circuit court of the United States for the southern district of New York.

To John Dunbar and Jeremiah Hopper:

Whereas Margaret Myers, executrix of John Myers, deceased, and Eugene S. Eunson, have lately appealed to the Supreme Court of the United States from certain portions of a decree lately rendered in the circuit court of the United States for the southern district of New York, made in favor of the said Margaret Myers, executrix as aforesaid, and Eugene S. Eunson, and against you, the said John Dunbar and Jeremiah Hopper, and have filed the security required by law:

You are, therefore, hereby cited to appear before the said Supreme Court, at the city of Washington, on the second Monday of October,
18 1876, to do and receive what may appertain to justice to be done in the premises.

Given under my hand at the city of New York, in the southern district of New York, in the second circuit, the 24th day of February, one thousand eight hundred and seventy-six.

SAM'L BLATCHFORD.

(Endorsed:) U. S. circuit court, south. dist. of N. Y. In equity. Margaret Myers, executrix, &c., et al., complainants & appellants, vs. John Dunbar, defendants & appellees. Citation. Whitney & Betts, complts'. solrs., 20 Nassau st., N. Y. Due service within citation hereby admitted. New York, March 1876. Solrs. for defendants & appellees. Filed March 18th, 1876.

19 UNITED STATES OF AMERICA,
Southern District of New York, ss:

I, John I. Davenport, clerk of the circuit court of the United States of America for the southern district of New York, in the second circuit, do hereby certify that the foregoing pages, numbered from one to eighteen, inclusive, contain a true and complete transcript of the record and proceedings had in said court in the case of Margaret Myers, executrix, &c., of John Myers, deceased, and Eugene S. Eunson, complainants and appellants, against John Dunbar and Jeremiah Hopper, defendants and appellees, as the same remain of record and on file in said office, the same being a cross-appeal between the same parties, entitled John Dunbar et al. against Margaret Myers, executrix, et al., the record of which having been heretofore transmitted to the Supreme Court, and by stipulation of the attornies of the respective parties, hereunto annexed, it is agreed that the same record shall be used as the record of this case.

In testimony whereof I have caused the seal of the said court to be hereunto affixed at the city of New York, in the southern district of New York, in the second circuit, this third day of October, in the year of our Lord one thousand eight hundred and seventy-six, and of the Independence of the said United States the one hundred and first.

[SEAL.] JOHN I. DAVENPORT,
Clerk.

(Indorsement on cover:) No. 737. Margaret Myers, extx. of John Myers, decd., & Eugene S. Eunson, appellants, vs. John Dunbar & Jeremiah Hopper. S. New York. C. C. U. S. Filed 4th October, 1876. Vide No. 123 for record.

SUPPLEMENT TO
TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

No. 123.

JOHN DUNBAR AND JEREMIAH HOPPER, APPELLANTS,

vs.

MARGARET MYERS, EXECUTRIX, &C., AND EUGENE S. EUNSON.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

Complainant's Exhibit No. I.

THE SCHEDULE REFERRED TO IN THESE LETTERS PATENT AND MAKING PART OF THE SAME.

To all whom it may concern :

Be it known, that we, John Meyers and Robert G. Eunson, of the City, County and State of New York, have invented certain new and useful improvements in machines for sawing lumber into thin stuff, for mirror backs, picture frame backs, etc., etc., and we do hereby declare, that the following is a full, clear and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which Fig. 1 is a plan, or top view of our improved machine. Fig. 2 is a side elevation of do. Fig. 3 is a side view of a circular saw, and one of the deflecting plates which cover the upper part of the stiffening plates of the saw. Fig. 4 is a vertical section of the circular saw, deflecting plates and guide troughs. The plane of section being through the center of the saw, and transversely with the side troughs. Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to certain new and useful improvements in machines for sawing lumber into thin stuff for mirrors, and picture frame backs, and other purposes for which thin stuff is used. The nature of the invention consists—1st. In the employment, or use of deflecting plates—one or two—placed at the sides of a circular saw for the purpose of preventing the sawed stuff from coming in contact with the sides of the saw, and enlarging or expanding the saw kerf, and thereby preventing the stuff from binding against the edge of the saw near its teeth. The deflecting plates also allow the saw to be stiffened by a proper plate secured to it, and a thin veneer saw may consequently be employed, which will cause but a small waste of stuff in sawing, as a narrow kerf is made thereby. 2d. Our invention consists in the employment or use of elastic clamps, attached to the ordinary adjustable and elastic beds, between which the stuff is fed to the saw. The clamps, above-mentioned, have an elasticity independent of the beds, and compensate for the varying thickness of the different pieces of stuff to be sawed by holding firmly the extreme end of the stuff, and keeping it in proper position to the saw, however much the elastic bed may be expanded by a succeeding piece of stuff of greater thickness. 3d. Our invention consists in the employment or use of knives, or cutters, secured to the adjustable beds, and so arranged as to cut or smooth off the rough and projecting sides of the stuff at the ends, making it of uniform thickness. 4th. Our invention consists in the combination of an adjustable bed and circular saw, arranged as will be hereafter shown.

To enable others, skilled in the art, to make and use our invention, we will proceed to describe its construction and operation.

A. is the frame, which may be constructed in any proper manner. B. is the shaft, running transversely across the front part of the frame, on which shaft a circular saw C. is placed. The saw C. is formed of

thin steel plate, and is such as is used for sawing veneers. On one side of this saw, a circular plate D. is secured by rivets, or screws (a), the plate being somewhat less in diameter that the saw; see figs. 3 and 4. The plate D. stiffens the saw, and without its use a comparatively much thicker saw would be required.

E., E^1, are deflecting plates, placed one at each side of the saw. The deflecting plate E. covers the upper part of the stiffening plate D., as as shown in figs. 3 and 4, and the inner end does not project outward from saw C. quite as far as the outer end, as shown in Fig. 1. The other deflecting plate E., on the opposite side of saw, is rather smaller in diameter than the deflecting plate E., and projects from the saw at about an equal distance at both ends. F., F. Figs. 1 and 2, are two feed roller beds, placed vertically in the back part of the frame A., and parallel with each other. Both of these beds are made adjustable by means of screw rods (b.) which bear against the sides of the beds, the screw rods of each bed being operated simultaneously by means of chains (c) passing around small toothed wheels (d) see Fig. 2, at the ends of the screw rods; see Fig. 2. G., G. are cranks, one of which is attached to one of the toothed wheels (d.) of each bed. The beds also have a lateral elasticity given them by means of india rubber, or other springs attached to them in any proper manner. H., H., H., H., are feed rollers, placed in the beds F., F.; two rollers in each bed; see Figs. 1 and 2. The feed rollers project some distance beyond the inner edges of the beds, as shown in Fig. 1. I. I. are clamps, attached to the inner ends of the beds F., F. At the back part of each clamp there are two journals (e.) (e.); see Fig. 1; one at the top, and one at the bottom; see dotted lines, Fig. 2. These journals fit in boxes (f.) (f.), which work or slide in recesses in the top and bottom pieces of the beds. The top boxes are shown in Fig. J., J. are set screws, which pass transversely through the top and bottom pieces of each bed. The inner ends of these set screws bear against india rubber springs (g.,) which are placed directly back of the boxes, as shown in Fig 1. K, K, Fig. 1., are india rubber springs at the the top of the clamps, one spring to each clamp. These springs are placed between the clamps and set screws L, L, which pass transversely through the top pieces of the beds F, F. M., M. are stops, which pass through the top pieces of the beds, one through each top piece. The stops regulate the distance of the lateral vibration of the clamps. O, O, are knives or cutters, placed vertically in the beds F, F. one knife or cutter in each bed. The top and bottom of the cutters are fitted in slides (h) (h.); see Fig. 1, in which the top sides are shown, which fit in the top and bottom pieces of the beds, and are regulated by set screws P., P. The cutting edges of the knives or cutters are on a line with the edges of the feed rollers H. Motion is given to the feed rollers H. by proper gearing R., at the lower part of the rollers.

Operation.—The beds F., F. are adjusted relatively to the saw C., so that the stuff may be sawed into the desired thicknesses. Either side of the saw may be made the "line side," by fixing permanently, or destroying the elasticity of the proper roller bed. The stuff S., see Fig. 1, is placed between the feed roller H., in the beds F., F., and

motion being communicated to the saw and feed rollers, the stuff is fed towards the saw, and cut by it; the two pieces being prevented from bearing against the sides of the saw by means of the deflecting plates E., E.; see Fig. 1. When the outer end of the stuff has passed the innermost feed roller, the clamps I., I. bear against the stuff, and hold it in a proper relative position to the saw. A fresh piece of stuff is now placed between the feed rollers, the latter piece of stuff forcing forward the preceeding piece. If the last piece of stuff is rather thicker than the preceding piece, it merely acts upon the beds, and forces the elastic one farther from the permanent one, without affecting the clamps, which are an independent elasticity, owing to the springs (g,) K. The knives or cutters O., O. cut or smooth off to an equal thickness the extreme ends of the stuff, which is split and not sawed; the usual practice in saw mills. We will suppose that the stuff S., Fig. 1, is two inches in thickness, and it is desired to saw it in two strips, one of which is to be one-quarter inch in thicknesse the one-quarter inch strip being the thinnest, may be deflected by the plate E., as it is inclined, or projects outward from the sam; farther than the plate E. The roller bed, in line with the deflecting plate E., is permanently fixed at one-quarter of an inch from the sides of the saw. The opposite bed being elastic, the side of the saw on which the thin strip passes is the "line side." The opposite side of the saw may be made the "line side" by permanently fixing the opposite roller bed, and allowing the other one to remain elastic. By the above improvements, we are enabled, 1st. To employ a thin veneer saw, and consequently a small amount of stuff is lost, as the saw kerf is narrow. This is an object in sawing thin stuff. 2d. The stuff to be sawed in always kept in a proper relative position to the saw when varying in thickness, and the ends of each piece of stuff is smoother, or reduced to an equal thickness before it leaves the feed rollers.

We do not claim the adjustable and elastic roller beds F., F., for they have been previously used. But what we claim as new, and desire to secure by Letters Patent, is:

1st. The employment or use of the deflecting plates E., E., one or both placed at the sides of the saw, as herein shown, for the purpose of preventing the sawed stuff from bearing against the sides of the saw, and expanding the saw kerf, and also for the purpose of allowing a thin veneer saw to be stiffened by plates D., one or two, as desired

2d. We claim the employment, or use of the clamps I., I., arranged as herein shown, or in an equivalent way, so as to have a literal elastic movement independent of the roller beds, to which said clamps are attached, for the purpose of compensating for the varying thickness of different pieces of stuff, and keeping them in a proper relative position to the saw.

3d. We claim the knives, or cutters O. O., placed in the roller beds

F., F., and arranged substantially as herein shown and described, and for the purpose as set forth.

4th. We claim the employment of an adjustable bed F., with clamps, as described in combination with the saw C., when the saw has a stiffening plate D. in line with said, by which the stiffened or rounded side of the saw is made the "line side."

the adjustable bed-

JOHN MYERS,
ROBERT G. EUNSON.

Witness:
S. H. WALES,
JNO. W. HAMILTON.

Complainant's Exhibit No. 2.

TO THE COMMISSIONER OF PATENTS:

The Petition of EUGENE S. EUNSON and MARGARET MYERS, widow and Executrix of JOHN MYERS, deceased, both of the City, County and State of New York, respectfully shows:

That on the 22d day of May, 1854, Robert G. Eunson and the said late John Myers did obtain Letters Patent of the United States, bearing date on that day, and numbered 10,965, for a certain new and useful re-sawing machine, denominated in said patent "an improved machine for sawing thin boards," &c.

That your petitioners are the joint and exclusive owners of said Letters Patent within and throughout the whole of the United States and the territories thereof, as they verily believe, except the following portions and districts, which are, as they believe, owned by the following parties, viz.:

The State of New Jersey, owned by the said Eugene S. Eunson and Jacob Lagowitz, jointly.
The City and County of Philadelphia, owned by persons unknown to your petitioners.
All that portion of the City of New York lying West of Broadway and Eighth avenue, owned by Eben Peek and Gilbert J. Bogart.

That your petitioners have reason to believe, that through inadvertenee, accident and mistake, and without any fraudulent or deceptive intention, the said patentees have claimed more than that of which *as claimed* they were the original inventors, to wit: The first claim of Letters Patent is too broad, in that it includes that which your petitioners here disclaim.

Your petitioners, therefore, hereby enter their disclaimer to that part of the first claim of said Letters Patent which covers the employ-

ment or use of the deflecting plate, E, at the side of the saw, thereby causing the said claim to include only the combination of the saw described with *both* of the deflecting plates E. and E′., when *both* of said deflecting plate are used at *one* and the *same time*, in the manner and for the purposes described in said patent.

The said first claim of said Letters Patent will accordingly be as follows:

1st. The employment or use of the deflecting plates, E. E′., both placed at the sides of the saw, as herein shown, for the purpose of preventing the sawed stuff from bearing against the sides of the saw, and expanding the saw keef, and also for the purpose of allowing a thin veneer saw to be stiffened by plates, D., one or two, as desired.

Your petitioners also desire to disclaim that part of said patentees' description of their invention wherein they say the nature of the invention consists, first, in the employment or use of deflecting plates—"*one or* two"—placed at the sides of a circular saw, &c., and to limit the nature of the invention to which claim is made to the combination with the saw of the *two* deflecting plates, one at each side of the saw as described.

This disclaimer is to operate to the extent of the interest in said Letters Patent vested in your petitioners, who has paid ten dollars into the treasury of the United States, agreeably to the requirements of the act of Congress in such case made and provided.

MARGARET MYERS,
Executrix of John Myers, deceased.

Nov. 30, 1870.

EUGENE S. EUNSON.

Witness,

R. R. THROCKMORTON, BROOKLYN, N. Y.

LETTERS PATENT NO. 4,017, DATED MAY 1, 1845.

THE SCHEDULE REFERRED TO IN THESE LETTERS PATENT, AND MAKING PART OF THE SAME.

To all whom it may concern:

Be it known that I, REID R. THROCKMORTON, of the City of Brooklyn, County of Kings, and State of New York, have invented a new and useful machine for planing, sawing, tonguing, grooving and rabbiting boards; and I do hereby declare that the following is a full, clear and exact description of the construction and operation of the same, reference being had to the annexed drawings of this specification, in which Figure 1 is a perspective view, and Figure 2 is a ground plan.

The nature of my invention consists in making and applying a new machine by new mechanical operations, to produce the planing, sawing, tonguing, grooving and rabbiting boards, plank and other materials by one operation on the same plank or board, or either one of these operations respectively, by disconnecting the other parts. This I accomplished by the use of a circular veneer saw and cutters, or a number of them, arranged as required and herein specified. The following is a description of one size of machine, but they may be built of such sizes and proportions as occasion may require, viz: I construct my machine in the following manner: A Fig. 1 is a frame of wood or metal about twenty feet in length, and four feet wide, and three feet six inches high, standing on six legs. B Fig. 1: Said frame to have two or more girths let into the top timbers crossways, to brace said timbers. Underneath the top timbers, and about eighteen inches from the top of frame, is let in two other parallel pieces D D, Fig. 1, running the whole length of the frame; the same kind of pieces is also let in, running from the centre leg to one end of said frame, and about four inches from the floor E E, Fig. 1; those pieces to be of timber four by eight, and on both sides of the frame; underneath the legs there should be three feet, C C C, Fig. 1, running crossways the frame, and the legs morticed into them to stiffen the legs. The timbers in said frame should not be less than seven or eight inches square, except the four parallel pieces above spoken of, with the narrow edges to the front of the frame; also, a piece, F, Fig. 1, to be let in on the bottom of parallel pieces crossways the said frame; said frame should have corner braces to run parallel with the timbers; that is to say, on the sides of frame; into the top timbers, and the ones underneath it, is let in eight roller stands, Q, Fig. 1, sufficient to receive eight rollers five or six inches in

diameter, with suitable boxes properly fitted to the stands, allowing the outside rollers to approach and recede from the rollers next to the frame, which must set the distance of their own diameter from the frame, with the boxes arranged so as to adjust them with set screws to a proper line, and turn the rollers G G, I, I, J, J, K K, Fig. 1, to set vertical, the outside ones moving to and from the inside ones, so as to gripe any thickness of plank or board. On top of said rollers are star cog wheels, O, Fig. 2, which connect them together so that one cannot turn without the other. On the inside rollers are fitted bevel cog wheels, P, Fig. 1, about eighteen inches diameter, on the end below the stand and timbers; into the first bevel wheel is geared a six-inch pinion, E, Fig. 1, mounted on a short shaft, D, Fig. 1, about three feet long and one and a half-inch diameter; this shaft running crossways the machine supported by hangers and boxes to the frame; said shaft to have a pinion, E, Fig. 1, on each and of it, so that by pushing it either way the pinions will come in gear; and by giving motion to it the feed roller will start in motion, and by pulling it back again it will stop; by pulling it back still further, it will move the rollers the reverse way, which will back the plank or board out of the machine. This shaft to be carried by a pulley about thirty inches in diameter on the inside end from the main drum, or other shafts of the machine. If from any shaft in high motion it should be reduced by conical pulleys and an extra shaft, so as to decrease or increase the motion at pleasure; say the motion of the rollers, from fifty to a hundred revolutions per minute, more or less. In front of the frame and underneath the centre of the back rollers, is attached a connecting feed shaft G, Fig. 1, parellel with the frame, and mounted in hanging boxes, H, H, Fig. 1, fastened to frame with as many pinions, I, Fig. 1, on it as will connect all the back rollers. To the boxes of the outside is attached a fulcrum bar to each N, Fig. 1, running crossways the machine and extending beyond the timbers; in the other end is a mortise or slot to receive a gib, R, Fig. 2, and cranks, S, Fig. 2. In the end of the fulcrum bars are set screws for the purpose of setting the gib in or out, to shorten or lengthen the fulcrum bars to accomodate different thicknesses of stuff. The upper and lower cranks to each pair of the boxes is mounted on the same shaft, T, Fig. 2; to this shaft is attached a lever, U, Fig. 2, and weight; this weight is attached by a cord and pulley, the shaft standing vertically, the outer end of the lever moving to and from the side of the frame, thus causing the outer rollers to compress the plank equal on both edges. There should be set screws in the end of the fulcrum bars next to the rollers also, so that the rollers shall not approach too near each other when the board is out. The advantage of this improvement is that one end of the rollers cannot approach without the other end. Three pairs of these rollers will be sufficient to gear together in most machines, the other pair to keep the material steady through the machine; on the outer end of said short feed shaft already spoken of, there should be a deep groove or journal turned for the purpose of receiving the end of the starting bar, which should be made to slip into the journal with clutch springs to the end, of sufficient length to reach to the center of the shaft; this being fastened on a movable joint at a suitable distance, will work the

short feed shaft backward and forward at pleasure. Next and in front of the first pair of rollers, G G, Fig. 1, which is about four feet from the end of the frame, is placed a stationary knife, A, Fig. 1, mounted on a cast-iron bed piece with bolts nuts and set screws to push out the knife as it diminishes in width. The use of this knife is for the purpose of taking off the stub shot that is generally on boards and planks. The second part of rollers, I I, Fig. 1, must be set about two feet from the first; between these two sets of rollers are let in flush with the frame two cast-iron stands, X X, Fig. 1, with slides into these slides are fitted two movable boxes, Y Y, Fig. 2, with regulating screws, C C, Fig. 1, running through a nut let in at the bottom end and reaching below the frame to two cast-iron hangers, W W, Fig. 1; attached to frame into those hangers is mounted a shaft W, Fig, 1, about one and a half inch diameter, reaching from the face side of frame to the opposite one, this shaft having on two mitre wheels, V V, Fig. 1, mounted one upon each end of these wheels connecting with two of the same diminsions, which are mounted on the lower end of the regulating screws, C C, Fig. 1, thus by turning, the cross shaft, W', Fig. 1, the movable boxes, Y Y, Fig. 2, will traverse up and down. Into these boxes is mounted a conical cutter and shaft, Z Z, Fig. 1, the cutter to be on an angle of about twenty-two degrees. Thus it will be seen that one end of the shaft must be dropped down so as to bring the cut of the tools at right angles with the face of the board, the lower end of said shaft running in a movable step, Q, sliding at a proper angle with the shaft. The conical cutter-head to be capable of receiving from four to eight two-inch cutters, *a*, which are let in through a mortise and fastened with a set screw, said wheel to be about sixteen inches diameter. These are to reduce the boards to an even width, instead of a saw, preparatory to being operated on by other parts of the machine. The regulating screws to have threads of one-eighth of an inch to the turn, so as to bring the cutters up and down by half inches at a time, or more, if you please; every four times making half an inch. Next to the second pair of rollers, I, Fig. 1 is a bed plate, L, Fig. 1, of cast-iron, about fourteen inches wide, reaching from the top rail of the one beneath, cut out circular on one edge to suit the circle of the saw and to set a little back from the line of the rollers, so as to allow the plank to come to the saw steadily, and when past the teeth of the saw, to be off the bed plate and clear from the saw. About three feet further on the frame is a third set or pair of rollers, J J, Fig. 1; between the second and third pair is mounted a circular veneer saw, M, Fig. 1. To hang the saw, let in on both timbers two cradles, K K, Fig. 2 of cast-iron, with chipping pieces on the bottom and edges or sides, in order to dress them true for the reception of the boxes, L L, Fig 2. On the outer end there should be a raised projection for the insertion of a set screw for the purpose of pushing out the saw shaft, the boxes to be fitted tight or snug to the journals of the saw shaft, N, Fig. 2, and let into those cradles to be allowed to slide easy, but not to play. Those boxes to have a slot or oblong hole in each side for the reception of bolts, which are let through the cradles and permanent in them, so that, when it is desired, the saw shaft can be moved across the timbers, carrying the boxes with it either way, to suit any thickness of

stuff to be worked; then screw the nuts, in said bolts, and the boxes are fast. When it is desired, slack the nuts, and the boxes and shaft and saw will all move at once without disturbing the journals, they, keeping their proper place and tightness. Then set up the set screws at the end, until it touches the outer end of the shaft, and the saw will run steady. The outer end of the saw shaft should be turned to a point or nearly so, and flat on the end, running against a flat center of the set screw, which is kept steady by a jam nut. The shaft to be about two and a half inches in diameter, the journal one and three fourths of an inch in diamater, and six inches long in their bearings; the saw to be from three to four feet in diameter. This saw is for the purpose of slabbing off the uneven and extra thickness of the board and plank or other material, thus saving the veneer that comes off for some useful purpose, and preparing the material to be tongued and grooved and faced to a smooth surface by a facing wheel. Immediately after the board passes this set of rollers it approaches another bed, plate I, Fig. 1, of cast-iron. This is about four feet long, with three half circles cut out of the top, and one out of the bottom ,to accommodate the cutter wheels. J J, Fig. 1, for tonguing and the grooving and edging tools; the bottom circle is a recess for one of the tonguing wheels, J, Fig. 1 (the lower edge of the plank being the tonguing edge). These wheels are two in number; they are made conical on their edges and the tools *c c* are the same shape, and slipped in through a mortise made in the casting to suit the tools, which must be fastened in their places by set screws, set in from the face of the cutter head. The cutter heads to be nine or ten inches diameter, having a sleeve or long fillet on them, this sleeve being bored out to sufficient depth to receive the end of the spindle—say four inches—leaving the top about half an inch solid, and small hole in it to receive a set screw for raising and lowering the cutter heads to any suitable distance required. The spindles of these cutter heads must stand at forty-five degree angles from the flour or top of the machine, and crossing each other, bringing the cutter head on the outside spindle to operate on the inside rabbet; of the tongue, and the head of the inside spindle to operate on the outside rabbit, thus the plank moving between these wheels will receive its tongue. The advantage of thus making the tongue will be this: that these wheels do not cut on a parallel line with the board, nor at right angles with it, as do the old plan of cutters, but cutting in an oblqiue direction, making, as it were, a drawing knife cut. Another advantage is that the edge of the plank that forms the rabbet is planed and made smooth, and at the same time the tongue itself is planed smooth. This cannot be done in the old way, with the two cutters projecting from a spindle setting at right angles from the board, and cutting on a sufficient distance to make a tongue, as they only operate on the edge of the plank or board, the tongue being naturally left, but not made smooth, and is subject to become larger, as the cutters wear by friction caused by running over the sides of the tongue to cut away the wood, each side of it to form the tongue. This is prevented in my cutters, they operating on both sides of the rabbet at the same time. Another advantage is that the tongue can be made to go in tight or easy at pleasure, by bringing the wheels closer together, which is done by the

sliding boxes which the spindles are mounted in. Immediately over these two wheels is another conical cutter, R, Fig. 1, about the same diameter, which is about ten inches or a foot, each of said cutter heads to be capable of receiving six steel cutters, *d d*. This is for the purpose of dressing the groove edge. Its angle is about twenty-two degrees, and the cutters straight on their edges, but the same angle of the cone let through a mortise and fastened with set screws. This is to true the groove edge with the tongue edge, and give it a clean and perfect angle. The advantage of this cutter over the cones now in use is that it prevents the mismatching of the plank or boards, as is frequently the case in putting in three tools in one mortise one cutting the groove, the others cutting the edges each side of the groove, and one of these projecting a little too far apart, it must make a bad match, and perhaps make an open joint at the top when laid on the floor, my broad cutters covering all the edge and leaving the groove to be cut by another tool or tools. Another advantage is that it cuts obliquely, which prevents tearing the material if it should be knotty or shaky, inasmuch as it does not follow the line of the board or plank. The board in progress next approaches two scoring saws, S S, Fig. 1, very thin, about eleven or twelve inches diameter. These saws are for making a score in the edge of the plank preparatory to cutting the groove, cutting two lines in the edge just as wide as the groove is intended to be but not so deep as the groove, say about one-eighth of an inch deep—this is to prevent tearing in bad stuff. To mount those saws there must be a flange two or three inches smaller than the saws, with a sleeve N, Fig. 1 about three inches long each side of it; on one side of it, the outward from the frame, fit one saw; then next put on a collar as thick as the width of the groove, except the thickness of saws; next to the collar the second saw; next to this saw another flange, and then a screw and nut, the screw to be chased on the outer end of the sleeve to keep up the second flange to the saws, the sleeve being bored to suit the shaft and left solid at the end, except for the set screw; slip it on the shaft and fasten it with a set screw. The two saws can then be moved in or out on the shaft without disturbing them in the collars; slack the set screw on the shaft and turn the one in the end, and the saws are both moved to their proper places. By this arrangement you can take off the outside saw and collar and replace it, without the sleeve or backsaw from their places, and return them again in a minute and never alter the shaft, if you please. Slack the set screw, and the sleeve will slide off with all on it, which will be convenient in some cases; in particular where the groove is not needed, as in weather boards. The board then approaches the grooving wheel W, Fig. 1, which has six cutters or teeth in it just as thick as the groove is wide; this has its sleeve and set screw the same as the other wheels with narrow mortises in it. This differs from those in common use, inasmuch as the teeth are rounded at the ends or points so as to work out around at the bottom of the groove. This is done for the purpose of strengthening the board or plank, as the common way of making a groove weakens the boards in the angles; the consequence is it is very apt to split off, particularly in thin boards.

I consider these rounded tools an improvement. Underneath this cutter wheel is placed another of the same dimensions (Y, Fig. 1), as the grooving wheel; this is for rounding the tongue to match the groove. This wheel has nothing to do with making the tongue, but merely to round it. It will be seen where the improvement consists, as a common tongue put in a square groove with the corners off, will never fill it up but leave a space. Between those two wheels and the scoring saws, there should be a roller, *c*, Fig. 1, to keep the material true, This should have set screws or levers and movable boxes. After the piece passes those two wheels and the rollers, it is held down by another roller, *e*, Fig. 1, of the same kind, and mounted in the same way, but shorter, fourteen inches more or less, the next previous to be longer to accommodate the saw and wheel next to it, say two feet six inches. The finishing conical cutter, R, Fig. 1, saws S, S, Fig. 1, and groove tools, W, X, Fig. 1, and to rise and fall to accommodate the different widths of stuff; this is done by mounting on the frame, two cast iron gallows frames, O, O, Fig. 1, about three feet wide and the same in height, projecting about two feet four inches above the frame and secured to the front of the top timbers and braced from one to the other by braces; these are so arranged with slides as to receive two movable yokes or frames, *p*, *p*, Fig. 1, capable of raising and falling, being fitted to the first mentioned frames, both made with receptions for the boxes of the spindles. From the center of each of said yokes, which are also of cast iron, is a stirrup, q, q, Fig. 1, projecting about two inches from the yoke towards the front of the frame, reaching from the top edge of the lower rail of the yoke to the top rail, which is rather circular; in the top of said stirrup is let in a nut for the reception of the regulating screws, P, P, Fig. 1, the upper end being attached to the gallows by means of boxes—the stirrups to be wide enough between the straps to admit the screws, P, P, Fig1. , one inch in diameter, and to travel as far as is desired for the accommodation of the different widths. Those yokes and the spindles mounted in them are all to move at once by the regulating screws I, I, Fig. 1. For the purpose of turning said screws P, P, Fig. 1, mount a shaft *b*, *b*, one and one-eighth of an inch diameter in boxes, to reach from one gallows frame to the other crossways the frame, on this mount two miter or bevel wheels, Q Q, Fig. 1, about eight inches in diameter; on the top of the regulating screws, P P, fig. 1, mount two more of the same dimensions Q, Q, Fig. 1; these being geared together; turn the cross shaft by means of a crank, and the yokes, spindles and cutters will move to the material at once. The screws should be eight threads to the inch. The center or saw shaft boxes must be allowed to fall as much lower than the other shafts as the saw will become reduced by wear and tear, so as to keep the edges on a line with the other cutters; this is done by set screws rather larger than those to the other boxes, which are placed underneath the box; said boxes are fastened by means of nuts and bolts to the lower rail of movable yokes and a slop in them long enough for the movement to accommodate the regulating to a proper height. After the piece passes the tongueing and grooving operation and the small rollers, one of which is mounted on the last bed plate, L, Fig. 1, of the same kind as the first one spoken of, only a little wider

on the upper edge, and higher, to accommodate the roll stand. After it passes the last bed plate, L, Fig. 1, it approaches a face plate M, Fig. 2; the object of this plate to keep the material hard up to the bed plate, L, Fig. 1; while the facing cutters are operating upon the board. The face plate I consider new and useful, as it will keep the material steady and prevent it springing into the cutters of the finishing wheel; after it leaves the little roller *f*, it must be made circular, to correspond with the circle of the finishing wheel, *a*, Fig. 1, and of sufficient width to keep it steady in its place while the material is passing behind it, causing the plank as it were, to impinge on the bed plate as it passes the facing wheel *a*, Fig. 1, acting upon it so that the plank or other material will be compelled to pass a perfect guage. This plate to have two bolt holes through the top flange of it, and one through the lower flange; the bolts should be let into the frame permanently, and the plate to move on and off the bolts with ease, and to have a nut each side of the flange of the plate; this is done to accommodate different thicknesses of stuff. Slack the outside nuts and turn up the inside one and the plate is to its place. Said bolts to be about one inch diameter. The next improvement consists in the finishing wheel *a*, Fig. 1, which must be a solid recessed wheel about three or four feet diameter. The object of recessing this wheel is the accommodation of the permanent face plates as above. It is made in the following manner: Make, in the first place, a solid wheel of cast iron, about six inches smaller than the cut is intended to be; then place on the periphery of the wheel about sixteen projecting tool beds *c*, *c*, *c*, *c*, Fig. 1, about three inches wide, and about one inch thick, and three inches long, more or less, according to the length of the irons intended for use; over the top of this bed piece is a strap, *h*, Fig. 1, for putting one or more set screws, *e*, to keep the iron *g*, down in its place while cutting; this will make a kind of mortise to receive the cutter or plane iron; stack the set screws and the tools will slip out. This is preferable to making a hole through the tool, as it weakens and takes more time to shift it in and out of grind. The tool bed-piece *c c c c*, Fig. 1, should be set on the wheel in such angles as not merely to give the proper rake to the tool, but so as to raise the sides of it next to the center to an angle of about twenty-two degrees from a horizontal line across the center of the wheel; this will give the finishing tool a complete rabbet tool cut. The tools should be about two and a half inches wide, made the same as the common plane-iron, without the slit in them. The tool-beds should project from the face of the wheel about one inch, and the cutters about a half an inch beyond them. The rake of the tools should be at an angle of about forty-five degrees, the cutting edge pointing towards the bed plate or frame. This forms the recess to the inside of the wheel to receive the stationary face-plate *M*, Fig. 2, the cutters running around the edge of it, while the material is passing between the bed-plate and the face-plate; it then passes the finishing wheel *a* to the fourth and last pair of rollers *K K*, Fig. 1, and out of the machine. The shaft and boxes of the finishing wheel to be the same as the veneer saw, and its motion the reverse of the saw, that being with the grain and feed of the machine. All the cutters will

operate against the motion of the feed, except the said veneer saw This I consider a newly arranged wheel. There should be guards *d d*, Fig. 1, running the whole length of the machine for the lower edges of the plank to rest upon, with one end a little higher than the other, say one-fourth of an inch, more or less; this will keep the material close to it. After the material passes the two tongueing wheels I I, Fig. 1, there should be a short iron guard *h*, Fig. 1, say about three feet long; this should set at right angles from the face of the machine, this to move by set bolts to and from the machine, and to be of sufficient size to fit the rabbet of the tongue, and to be pushed up against it by the hand and screwed fast. The lower edge of the material resting on the long guard, the short one filling up one side of the tongue rabbet. This will prevent all trembling and springing. Whenever the machine is shifted for different thicknesses of stuff, shift this guard also, pushing it hard against the tongue, screwing at the same time; this will secure strength and true work. On the first end of the long guard place a stationary knife, B, Fig. 1, to clear the lower edge of the stub shot off. By putting on a roughening wheel in place of the veneer saw, the saw may be dispensed with. In this case the veneer is lost, but it will do its work well, but not as fast. There may be a stationary knife used to smooth, instead of the finishing wheel; there may be also a cylinder used as a finishing wheel, in combination with the veneer saw or rougher, or without either in combination with the tongueing and grooving tools and other parts of the machine. By dispensing with the rollers and tongueing and grooving apparatus and using a carriage, the veneer saw and finishing wheel will take off the veneer sawed and planed at one operation, after the saw takes off the first veneer. By putting a broad set of cutters in the inside tongueing wheel, and wider tools with square edges in the wheel that rounds the tongue, taking off the short guard, and putting on one about one foot longer, to keep the material steady against the bed plate, and removing the scoring saws and the grooving apparatus, the machine will face, edge and rabbet a board complete for weather boarding. This may be done by the machines now in general use, called Woodworth's, Emmons & McGreggor machines, by putting on an extra spindle and cutter head running crossways the machine and underneath or behind the board; the cutter head to be put next the guard side of the machine, with a movable bed plate or face plate on the face of the plank to be kept hard against the face of the plank by screws, or a lever or springs; this must be put to the machine in between the rolls, next to the third pair of rolls. By using the veneer saw and finishing wheel in combination with the feeding rollers and gearing only, this machine will be useful for ripping boards and planks edgeways, so as to make two pieces out of one, which is commonly done by the up and down saw. If done in this way, one piece will be planed, as well as sawed, at one operation, and with great speed. I do not confine myself to a rotary saw, but may sometimes use an up and down saw as a veneer saw, or for ripping. The dubbing—that is to say, the stub shot—may, instead of using stationary knives, be taken off by saws, cutter wheels, like the one for facing, with the tools set to suit it, or cylindrical cut-

ters, or a backward and forward cutter, or up and down cutters; but I consider the stationary knives the best, and my own invention applied in this way. The material may be cut to an equal width with a saw, or the old straight wheels, instead of the conical cutters, but I prefer the conical cutters; I consider them new applied to this purpose. This machine may be fed with an endless chain instead or rollers and cog wheels; even the rollers may be geared with the straight-toothed cog wheels, but will not be so good and convenient as the bevel cog wheels and pinions, on account of the backing motion, &c. The yokes in the gallows frame may be moved up and down by means of racks and pinions instead of the screws and bevel wheels, but the screws and bevel wheels are the best and safest, as the racks and pinions might fall while running, and do damage; the screw cannot. There may be a roller put between the finishing wheel and the last bed plate, instead of the face plate, by making the wheel with a recess to receive it, and capable of running around it; but this would not be so good. The material being of different widths, the narrow stuff would be too far from the cut; it therefore would not be worked so true nor so smooth. The tongueing may be done by two vertical cutter wheels, one upon each side of the tongue, or by circular saws, or those now in common use; but they will not be so good, as they are run in a parallel line with the material, and the tongue is not planed off, but left rough on its sides. The scoring saws may be taken off and not used if the work is not required to be done very particular, and the groove cut with the groove tools alone, but not so safe and good; or thin cutters introduced in their place, which may be taken out and be ground as the rest of the cutters. By attaching to the frame opposite the tongue edge of the board a small extra vertical spindle, A', and cutter wheel with cutters suited to it, as shown in Fig. 3, a bead may be struck on the board as is required in ceiling boards. This, I believe, has not been done in any machine. When this wheel is not wanted, slip it off and leave the spindle standing in its proper place.

Having thus fully described my improved planing machine, what I claim therein as new and desire to secure by Letters Patent, is:

1*st*. The combination of the veneer saw with the planing wheel for the purpose of reducing the plank or board to a uniform thickness; and,

2*d*. I also claim the combination of the veneer saw, for reducing the plank or board to a uniform thickness with the tonguing and grooving wheels, as herein described.

3*d*. I also claim the manner of forming the tongue by the two tonguing wheels, J J, having pointed cutter irons with two cutting edges, the one cutting the side of the tongue and the other the shoulder of the same, the shafts of the said wheels standing at an angle of forty-five degrees, more or less, and crossing each other at or about a right angle.

4*th*. I also claim, in combination with the tonguing wheels, the separate wheel for rounding the tongue.

5th. I also claim the use of one of the tonguing wheels (the other being removed) for cutting a rebate upon the edge of the plank, where they are intended for overlapping each other; as in weather boarding.

6th. I also claim, in combination with the planing, tonguing, and grooving wheel, the wheels for forming a bead upon the edge of the board.

7th. I also claim the stationary knives for cutting off the stub short from the end of the plank in combination with the feed rollers.

REID R. THROCKMORTON.

Witnesses:

Z. C. ROBBINS,
WM. COOPER.

Supreme Court of the United States.

No. 123.

Appeal from Circuit Court of the United States for the Southern District of New York.

John Dunbar and Jeremiah Hopper,

Defendants and Appellants,

vs.

Margaret Myers, Executrix, &c. and Eugene S. Ennson,

Complainants and Appellees.

BRIEF FOR APPELLANTS.

CHARLES F. BLAKE,
SAMUEL J. GLASSEY,
Of Counsel.

New York:
John Polhemus, Printer, 102 Nassau Street.
1876

Supreme Court

OF THE UNITED STATES.

JOHN DUNBAR and JEREMIAH HOPPER,

Defendants and Appellants,

against

MARGARET MYERS, Executrix and EUGENE S. EUNSON,

Complainants and Appellee

On appeal from Circuit Court of the United States for the Southern District of New York

Brief for Appellants.

This is a suit in equity, commenced by the appellees against the appellants, in the Circuit Court of the United States, for the Southern District of New York, in April, 1870, for an alleged infringement of Letters Patent No. 10,965, the relief demanded being an injunction and an accounting for profits; issue was joined by replication to answer December, 1870; testimony was taken and the cause heard before Judge Blatchford, and in May, 1871, he made his decision in favor of the complainants and an interlocutory decree was entered on the 25th day of May 1871, by which the Defendants were adjudged to have infringed the first, second and fourth claims of the patent; an injunction was granted and an order of reference to a Master to take an account

of profits derived by the defendants from the infringement.

Such accounting was had before Joseph Gutman, Jr., Esq., Master, and on the fourth day of February, 1873, he made his report, and he found and decided that there was due from the defendants for such profits the sum of $9,120.94. Both parties excepted to the Master's report; there was a hearing upon such exceptions before the Honorable Samuel Blatchford, Judge, who overruled the exceptions on both sides, and affirmed the Master's report, and thereon ordered a final decree to be entered. Such decree was entered on the first day of July, 1874; the defendants appealed from such decree, and every part thereof, on the twenty-eighth day of July, 1874.

The patent sued upon was for a machine for sawing thin boards, and was granted on the 23d day of May, 1854, for fourteen years, and subsequently extended for seven years

The alleged improvements consisted in the application to a circular saw, for re-sawing or splitting boards, of two appliances: a pair of clamps, intended to hold a board while being sawed, steadily against the edge of the saw, said clamps having a lateral elastic and vibratory movement, and *one or two* deflecting plates, which were flat pieces of metal, firmly attached to the framework of the machine, close to, but not in contact with, the saw, the object of which was to prevent the sawn board from bearing on the surface of the saw.

The claims stated in the patent were:

First.—The employment or use of the deflecting plates, *one or two*, for the purpose of preventing the sawn stuff from bearing against the sides of the saw, and also for the purpose of causing the saw to be stiffened by plates—one or two, if desired.

Second.—The use of the clamps constructed as described in the specification, or in an equivalent way, so as to have a lateral elastic movement independent of the roller beds, to which said clamps

were attached for the purpose of compensating for the varying thickness of the stuff to be sawn, and to keep them in a proper relative position to the saw.

Third.—A certain arrangement of knives or cutters not involved in this controversy.

Fourth.—The employment of an adjustable bed with clamps as described, in combination with the saw, when the saw has a stiffening plate in line with said bed, by which the stiffened or rounded side of the saw is made the "line side."

After the defendant's answer was filed, December 10, 1870, complainants filed a disclaimer (see) by which they disclaimed and abandoned the claim for the use of the deflecting plates when *only one* was used; in other words, restricting the first claim of the patent to the use of two deflecting plates in combination.

The defenses are:

First.—That the patent is invalid on its face, in not describing correctly the alleged invention, and in claiming more than is alleged to have been invented.

Second.—The patentees were not the first and original inventors of the alleged improvements.

Third.—That the machine used by the defendants did not infringe.

Fourth.—That no profits accrued to the defendants from the use of the devices claimed and adjudged to be the invention of the complainants.

A re-sawing machine constructed without any of the devices described in the patent may be briefly described as follows:

A circular saw composed of thin segmental plates, bolted upon the flat side of a central flange, and supported by a shaft

or mandril in an appropriate frame at the forward end of which are two or more pairs of vertical feed rollers. These rollers are adjusted in frames or beds in such a manner that the distance between them can be adjusted in any of the ordinary mechanical methods. They may be arranged so as to be elastic on one or the other side of the saw; the board to be sawn or split is passed between the rollers, which guide it to and past the saw. Such a machine as described contains none of the devices described in the patent and is a practically useful and serviceable machine.

The complainant's devices consist:

First.—In attaching to the frame work of the saw in advance of the feed rollers, which are nearest to the saw, a pair of clamps set in journals on rollers which are not feed rollers, which project towards the saw, and to either of which clamps a lateral, elastic and vibratory motion may be given, the declared object of which is to hold the board while being sawn steadily in position after it has passed the feed rollers, and by a system of springs, set screws and stops, act in such a manner as to "compensate f the varying thicknesses of the different pieces of stuff to be sawed by holding firmly the extreme end of the stuff and keeping it in proper position to the saw, however much the elastic bed may be expanded by a succeeding piece of stuff of greater thickness."

Second.—The using of the second deflecting plate; that is, having the saw shielded on both sides instead of one only. The merit and value of the patent depends entirely upon the originality and practical usefulness of these two contrivances.

The following is an assignment of the errors in the proceedings and decree, alleged by the appellants:

First.—That the Court below erred in holding the patent to be valid.

Second.—That the Court erred in holding that the patentees were the original and first inventors of the devices claimed.

Third.—That the Court erred in holding that the defendants infringed.

Fourth.—That the Court erred in allowing any compensation to the complainants for use of the machine by the defendants, the manufacturer of the machine from whom the defendants purchased it having paid damages or license fee on it.

Fifth.—That the Court erred in holding that there was invention in using two deflecting plates, the use of one being known.

Sixth.—That the Court erred in finding that the invention claimed in the first claim of the patent was the combination of a circular saw, with two deflecting plates.

Seventh.—That the Court erred in holding that the devices of complainant's patent combined as claimed had new utility.

Eighth.—That the Court erred in overruling defendant's exceptions to the Master's report as to profits, and awarding any amount to complainants.

The specific exceptions to the Master's report (see pages 168 to 170, of record) are as follows:

The above named defendants except to the findings and conclusions contained in the report of Joseph Gutman, Jr., Esq., the Master to whom it was referred to take account, &c., filed February, 1873, as follows:

1. They except to so much of the first finding of fact as recites that the defendants were at any time

engaged in the business of re-sawing boards, and to his omission to find that they were engaged in the business of box-making, in which they used the machine in question and did not do re-sawing for others.

2. They except to so much of the said first finding as recites that said machine was, during said period, practically run because of, and by means of said inventions; "and to his omission and refusal to find that said machine always could be run and used as well without as with the said inventions."

3. They except to the second finding of fact, for that it finds as a basis for estimating the profits derived from the use of the infringing machine all the re-sawing done in the defendants' establishment, instead of the amount actually performed on the machine in question, and to his finding that any more re-sawing was done on said machine than as follows:

4. In 1863, six months	258,933½	feet.
In 1864	333,839	feet.
In 1865	578,222½	feet.
In 1866, first six months	235,219	feet.
In 1866, last six months	313,625⅓	feet.
In 1867	561,893	feet.
In 1868	794,566	feet.
In 1869, first six month	338,836	feet.
In 1869, last six months	381,190	feet.
In 1870	850,623	feet.
In 1871, five months	456,477	feet.

5. They except to the finding that defendants received any of the moneys stated in said second finding; and to the finding that $3.00 per 1,000 feet was defendant's usual charge for doing such work, and to the charge against said defendant, for work done on said machine, of any other or greater sum

than the average price of re-sawing, which was proved to be $2.75 per 1,000 feet.

6. They except to the findings contained in the said second finding—that the circular saw ran five or six times faster than the up-and-down saw, and that the circular saw averaged five and a half hours per day and the up-and-down saw but one hour, and that the up-and-down saw did but one-twenty-fifth of the work, and the infringing saw the balance; and to the finding that the infringing machine did any more of the re-sawing than as stated above.

7. They except to the said Master's finding, contained in his third finding of fact, as to expenses of running the said machine, in the following respects:

1st. For that he has allowed as rent but $432.61, whereas he should have allowed $602.40.

2d. For that he has allowed as cost of power but $2,682.40, whereas he should have allowed $6,060.

8. They except to the finding of said Master, to the effect that "no such machine was known or dis-"covered, or opened to the public, or to the defen-"dants, or used by them during the time when the "said profits were realized and received by the de-"fendants, from the use of the machines in suit."

9. They except to said Master's refusal to find as requested by defendants, that thirty-four hundredths of the re-sawing done by defendants during the period covered by the decree was done on the up and down saw, and not upon the circular saw, and that the work done on the circular saw did not exceed 5,280,468 feet, or thereabouts.

10. They except to the said Master's refusal to find as requested, that the value of the work done could not be ascertained from examination of the defendants' books, or otherwise.

11. They except to the said Master's refusal to find, as requested by defendants, that the actual cost to the defendants of producing the power by which their machinery was driven was not and could not be ascertained

12. They except to the said Master's refusal to find, as requested by defendants, that the machine, after the removal of the clamps and one deflecting plate, ran equally as well as when it had two clamps and two deflecting plates.

13. They except to the Master's finding and conclusion, that the defendants realized from the use of said machine, as profits, the sum of $9,120.94, or any other sums whatever,

14. They except to the conclusion of said Master, that the complainants are entitled to recover said sum or any amount whatever.

The foregoing is intended to be such preliminary statement of the questions presented, and the manner in which they are raised, as is directed by subdivisions I. and II. of the 21st rule of this Court. We will now proceed to briefly state the argument in support of the appeal.

The defendants and Appellants are and have been for many years engaged in business in the city of New York as manufacturers of packing boxes, occupying premises in the business part of the City (Worth street near Broadway), 50 feet by 75 feet in depth, three stories high. They buy lumber in the rough, saw, cut, plane, dress, &c., and make it up into boxes, which they sell; they have done no re-sawing for others; they use a number of machines for wood working, all operated by steam power, which they produce by boiler and engine owned by themselves, supplied with fuel in great part from the saw-dust, chips, &c., produced in their business, requiring comparatively little coal.

In 1863 they purchased from Roff & Huntington, machinists, of Newark, N. J., a circular saw with vertical feed rollers, a clamping arrangement, and two deflecting plates (see Model Ex. 5). The diameter of the saw was thirty-six inches. Alterations were made from time to time upon this machine by enlarging the diameter of the saw, until it was finally increased to sixty inches.

This machine was used by the defendants solely in their business of box making. They had in use all the time a vertical saw, which was operated by the same engine, and used for re-sawing all boards that were too wide or too thick for the circular saw. No account was kept of the work of the two machines separately, but it was ascertained with reasonable accuracy by the sawyer who operated both. The work of the circular saw was increased at the times when, upon its reconstruction by enlarging the blades, it became more efficient.

Roff and Huntington made and sold altogether about fourteen or sixteen of these circular saws, including the one sold to defendants.

They were sued by one Lagowitz, an assignee of complainants, and paid $1,650 in settlement (see Record, p. 136 [236]).

The proofs on the part of the complainants consist of

1. The Letters Patent to Myers & Eunson, issued November 30, 1854 (No. 10,965).

2. The disclaimer filed November 30, 1870.

3. Model of machine as patented.

4. Model of machine alleged to be used by defendants.

5. Testimony of Francis C. Treadwell, Jr. (expert), as to meaning of patent and alleged similarity of defendants' machine (pages 9, 19, printed record).

6. Eben Peck (a person interested with complainants), as to the "state of the art" in 1854, and the value of the alleged invention (pages 19, 24, printed record).

7. William Myers (a son of one of the alleged inventors), as to the practical operation of the patented machine (pages 24, 26, printed record).

8. Robert G. Eunson, one of the patentees, as to the date of invention and practical working of the machine, etc. (pages 26–33, printed record).

9. Caveat filed by the patentees. November 3, 1852, pages 34-35, printed record.

This constituted the case for the complainants on the main issues made by the pleadings. For the defendants the following proofs were given:

1. Extracts from Holtzapffell's Mechanical Manipulation (vol. 2, pages 809 to 813), published in London, 1847, describing a re-sawing machine (pages 70–73, printed record).

2. Copy of English Letters Patent issued to one Belford in 1853 (pages 73–76, printed record).

3. Letters Patent of the United States, issued to Pearson Crosby, April, 1857, for saw mill for re-sawing boards, being reissue of patent issued November, 1841 (pages 76–82, printed record).

4. Another patent to Pearson Crosby for improvement on same machine, issued April 8, 1851, for improvements in saw mills for slitting or re-sawing plank and other timber with circular saws (pages 83–85, printed record).

5. Patent issued by the United States, Dec. 31, 1839, to M. Andrews and J. Sproat (pages 85, 87 printed record).

6. Depositions of Henry B. Renwick (expert) as to state of the act at date of patent, utility, practical

operation of complainants' machine, and difference between it and defendants' machine (pages 38, 43, and 50, 61, 69, printed record).

6. E. W. Roff, manufacturer of the machine used by defendants, as to its operation and difference from complainants, (pages 61, 64, printed record).

8. Andrew Phillips, sawyer, employed by defendants, as to operation of their machine *with* and *without* the devices claimed by the patentees (pages 64, 69, printed record).

9. Statements of Myers & Eunson, patentees, as to receipts, &c., on application for extension (pages 87, 93,printed record).

10. Deposition of D. Doncaster, manufacturer, as to anticipation of the alleged invention (pages 44, 50 and 93, 94, printed record).

The foregoing references cover all the evidence relating to the main issues which were decided by the interlocutory decree.

Upon the accounting under that decree, the proofs consisted, on the part of complainants of :

1. Examination of defendant Dunbar by complainants, and of defendant's books (pages 106-114, and 151-153, printed record).

2. Examination of Phillips, defendant's sawyer, as to amount of work done on the machine in question (pages 113, 140-143, 149-150, printed record).

3. Examination of R. G. Eunson (one of the patentees) as to utility of the machine, &c. (pages 115-131, printed record).

4. Eben Peck, on same point (pages 131-134, printed record).

5. John Armstrong, a former employee of defendant's, examined by complainants as to opera-

tion of defendant's machine (pages 134-135, printed record).

6. E. W. Roff, maker of defendant's saw, as to use of deflector plates, &c. (pages 136-137, printed record).

Proofs on the part of defendants were:

1. Abram Scovill, sawyer, as to usefulness and effect of the devices claimed, and the operation of re-sawing machinery with and without them (pages 137-139, printed record).

2. M. F. Schureman (page 139, printed record).

3. William Jaycocks (page 140, printed record).

4. Cornelius Acker (page 140, printed record).

7. Andrew Phillips (pages 140, 143, 147, 149, 150, printed record).

8. Joseph Schmidlen (page 143, printed record).

9. Robert Carnduff (page 143, printed record).

10. Joseph R. Lyon (page 144, printed record).

11. Joseph Staats (pages 144, 145, printed record).

12. James Hamilton (page 145, printed record).

13. Daniel H. Carpenter (page 147, printed record).

14. Anthony Miller (page 148, printed record).

15. John Todd (page 148, printed record).

16. Henry B. Renwick (pages 152, 153, printed record).

All of whom were examined as to the cost of running the machine of defendants, the work it did and

the value of the work *with* and *without* the patented devices.

POINTS.

First Point.

The first claim of the patent is void if construed to be for *two* deflecting plates as distinguished from one in combination with the saw. And it is also invalid because there is no such description or explanation of the construction or operation of the described devices as enables an opinion to be formed as to their use.

The original patent claimed broadly the use of deflecting plates, "one or both" placed on the sides of the saw (see first claim, page of supplement to printed record).

It having been conclusively shown on the trial that the use of *a* deflecting plate to accomplish the very purpose suggested here was old and well known (see patent of Belford, printed record, pages 73–76; Andrews & Sproat, issued in 1839, pages 86–87; description in Holzapfel's Manual, printed record, pages 70–73; and testimony of Doncaster, 44–50, 93–94, printed record), the complainants in 1870 disclaimed the exclusive right to the use of *one* deflector, and limited the claim to the use in combination of *two*.

Upon examination of the original patent and the disclaimer, there is nothing to show that the *second* deflector is anything more than a mere duplication of the first, and, this being so, no invention is disclosed.

See evidence on the accounting, among which is the following (pages 141, 142, printed record): Andrew Phillips, who had charge of the defendant's saw during the whole time it was used, testifies:

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See evidence on the accounting, among which is the following (pages 141, 142, printed record): Andrew Phillips, who had charge of the defendant's saw during the whole time it was used, testifies:

That from the time the saw was purchased in 1863, until the injunction was granted (May, 1871), he run the saw with two deflector plates; from that time on, it was used with one deflecting plate and without any clamps. As to the effect he says: "I think I cut more lumber last year than any "time since I run the saw; there is no difference in "the working of the saw; I can see no difference "in the power required; I use the same belting—no "more, no less; there is no difference in the quality "of the work done; that saw has been running "every day since the injunction, part of the time "ten hours; there is no difference in the work, "since I removed the clamps and one deflector; in "fact, I think it is easier."

Testimony to the same effect was given by several other witnesses, who testified on the accounting, which will be referred to hereafter in that connection.

The legal effect of the disclaimer was the same as if the patent had been surrendered and reissued, and the right of the patentee to a recovery is limited to what he would have been entitled to if the patent had been originally what it became by the amendment.

But by describing and claiming as part of the *invention*, what was *not* their invention, viz: the use of *one* deflecting plate, the patentees deprived themselves of all right to any compensation. The public was imposed upon and deceived by their misrepresentation, and for sixteen years they were deriving gains and profits from all persons using re-sawing machines, upon the strength of this false representation. That the misrepresentation was one materially affecting the interests of the public is shown by the fact that the manufacturer of the machine used by the defend-ants, upon a claim being made by complainants, paid them for the use of the *two* deflecters (testimony of Roff, printed record, page 136.) When one of the deflectors was taken off, the machine worked as well as before.

By the use in the first claim of the original specification of the words "deflecting plates one or two," there was introduced the same elements of uncertainty in description and excess of claim which led this Court in the case of Gill *v.* Wells (22 Wallace, 1) to hold the reissued patent there in issue to be invalid.

See also Collar Co. *v.* Van Dusen, 23 Wall., 530, and Hailes *v.* Van Wormer, 20 Wall., 354.

Second Point.

All the substantial and material parts of the alleged invention were well known before the patent or the invention.

(*a*) As to the deflectors. The use of a guard at the side of a circular saw, to prevent the injuries apprehended from the friction of the sawn stuff was known as early as 1839. The patent of Andrews & Sproat describes the object sought and the manner in which it was to be attained as follows:

"*To all whom it may concern:*

"Be it known that we, Manassah Andrews, of "Bridgewater, in the County of Plymouth, and "James Sproat, of Taunton, in the County of "Bristol, and both in the Commonwealth of Mas- "sachusetts, have invented a new and improved "mode of relieving the collar of a circular saw "used for the purpose *of sawing boards*, shingles, "and other like articles, from the friction oc- "casioned by the pressure of the article sawed, "as it is separated from the block, upon the collar " of the saw.

"The nature of our invention consists of the in-

"sertion of a thin semi-circular plate of steel, or "other substance of sufficient strength, into the "collar of the saw, which collar is countersunk "to the distance from the center desired in a circular "manner, of sufficient depth to receive the said "plate below the surface of the collar, and which "plate, being secured at both ends to the frame upon "which the saw runs, receives upon its edge the "article sawed as it is separated from the block, "and before it reaches the center or thickest part "of the collar, by which means all the friction is "saved which would otherwise be occasioned by "the pressure of the article sawed upon the collar "while in a state of revolution, and before it "passes the center or thickest part of the collar. "In short, the plate being stationary and thicker "than the collar, opens the article sawed from "the block, and saves any friction upon the collar "or strengthener.

"What we claim as our invention, and desire to "secure by Letters Patent, is the countersink in "the collar, as before described, and the insertion "of the stationary plate or reliever, as above de- "scribed, in such manner as to receive upon its "edge the article sawed as it is separated from "the block, and before it reaches the center or "thickest part of the collar.

"The drawing hereto annexed correctly repre- "sents the construction and working of said im- "provements.

"MANASSAH ANDREWS.
"JAMES SPROAT."

That this is the same invention as Myers and Emerson *supposed* they had made is conclusively shown by their sworn statement on application for extension of their patent in February, 1868 (see printed record, pages 87-93), and this part of it they regarded and declared as the most important of their alleged invention. They say (page 88):

"The object of the deflecting plates was to lessen "friction, to enable the operator to make use of a "much finer saw than could otherwise be employed, "and thereby save valuable material, and to avoid "the necessity of any lengthened process of planing "of the re-sawed stuff. It was found, with the or-"dinary saw, that a large quantity of material was "destroyed in the kerf made by a saw of the thick-"ness requisite to give the necessary strength, and "also that with an ordinary circular saw, when used "for re-sawing, the pressure of the material against "the sides of the saw was productive of a very great "friction, necessitating the employment of much "greater power, if not altogether preventing work; "and also more rapidity by the heat and friction "and wearing out the saw.

"To obviate these defects, these deflecting plates "were introduced, which not only enable the saw to "be strengthened to any required amount, at the "same time preserving a delicate edge, but by deflect-"ing the thin portion of the sawn material from "the blade, almost destroys the otherwise grea tfric-"tion which ensues, and avoid its bad effects.

"The object of the other departments of the in-"vention are set forth in the patent, and sufficient-"ly explain themselves."

In Holzappfels Mechanical Manipulation (pages 70 73 of record), after fully describing the construction of a veneer saw; that is, a saw composed of thin plates bolted upon a flange, the use of such a saw in re-sawing, and of a plate to protect the saw from friction, is described as follows:

"The veneer saw is also applied to cutting cedar "wood for making lead pencils; bead stuff or thin

"wood for making the beadings in cabinet work; "quarter stuff, or wood quarter-inch thick; and oc "casionally also to wood nearly half inch thick; "and this may be considered the point of meeting "between the veneer saw and the upright frame saw "(page 742), in which ten or a dozen saw blades are "occasionally used for deals. But the veneer saw "works with greater accuracy, and is almost always "used for such thin boards of mahogany as are cut "by hand at the saw-pit.

"For sawing thin boards, the segments should be "nearly new or very wide, in order that the angle "made by the removed board may be slight. But "as the board, in riding over the guard (page 810) "near the edge of the saw, is nevertheless somewhat "strained open, it becomes needful to apply a contri- "vance called a guard, to prevent the thin board "from being all split off, instead of being entirely "separated by the saw. This is accomplished by a "curvilinear arm, equal in size and form to the "feather-edged guide which lies against the hard- "ened saw plates; but the guard is very much "thicker and stronger, and is covered with a thin "plate of brass.

"It will be further perceived in the perspective "figure (page 812) that the guard is attached to a "column, and is represented turned back, or out of "work, which is the case while veneers are being "cut; but in sawing boards the guard is placed "parallel with the edge of the saw, just external to "its teeth (as dotted), and is adjusted by set screws "to rest in hard contact with the face of the wood "which is sliding past it; the removed board is, "consequently, held securely into within half an "inch of the saw teeth, or the line of separation, "as shown by the diagram, figure 803."

The drawings accompanying this description show that the saw could be used for cutting veneers from a block or for re-sawing by slight changes, which any mechanic could make.

That the English patent granted to Belford (pages

73, 77, record), and of Pearson Crosby, granted in April, 1851, are for substantially the same invention as that claimed by appellees is apparent. Judge Blatchford, in his opinion (record, page 103), refers to them both, but omits any allusion to the fact that they both contain provisions for guarding the sides of a circular saw, when used in re-sawing. In the specification of the Belford patent, the invention is described as follows:

"This invention relates to the circular saw, which "presents, in some respects, important advantage "over the reciprocating saw, but yet has not to my "knowledge been heretofore successfully applied to "re-sawing or slitting planks and other timber, ex-"cept very narrow timber, for the reason that when "such saw is made of the requisite diameter for wide "timber, it will buckle, unless made so thick "as to be wasteful of the timber and of the power "applied to drive it. This difficulty has been over-"come for the purpose of sawing veneeers by making "the saw of a converse form on that face of it over "which the veneer passes as it is cut from the log, "but this method cannot be used for what is called "re-sawing or slitting planks or timber, for the rea-"son that from the thickness of the two parts they "are too stiff and rigid to pass over the thick part of "the saw, when the additional thickness is made all "on one, and even if it were made equally on both "faces, the binding on *on* the saw plate would be so "great as to present a serious resistance to its rota-"tion. The object of the invention is so to construct "and and apply the circular saw to the slitting or "re-sawing of planks or other timber as to avoid all "the objections above pointed out in supplying a "circular saw with both faces, converse or swelled, "so that it shall present a thin edge where the teeth "are cut to avoid waste of the timber and reduce "the resistence in cutting, and be gradually thicker "towards the shaft, to give it the requisite thickness "to prevent buckling, and ensure a steady motion "at the periphery; when this is combined with a

"fixed beveled gauge placed near the periphery of "the saw on that side of the shaft opposite to "where the planks are presented to the teeth, so "that the said gauge shall separate or spread the "two parts of the planks as they are being cut, and "prevent them from binding against the two faces "of the saw."

The patent to Crosby (pages 83, 85, of record) describes substantially both the devices claimed by the appellants.

It was claimed on the argument in the Court below that the *invention* by Myers and Eunson preceded these patents of Belford and Crosby. The only evidence in support of this claim was that of Robert G. Eunson, one of patentees. He states (pages 26 and 27 of record) that some time in 1851 he and Myers consulted together about this alleged invention, and he was occupied, at intervals, down to the Winter of 1853-4, in regard to it. A machine was made in 1853. And this is all the evidence as to the *date of the invention*. The caveat filed November 3, 1852 (see pages 34 and 35 of record), describes devices for saving the saw from friction entirely different from those described in the patent, and this proves that Myers and Eunson were alike ignorant of the state of the art, and uncertion as to the precise nature of their proposed improvements.

The testimony of Daniel Doncaster (page 44 of record) shows that, in 1856, he used and operated a circular re-sawing machine which had *two* plates or guards, one on each side.

It may be claimed that in this respect—*i. e.*, in regard to the deflecters, the patent relates to a *combination* of a veneer saw with deflecting plates, but nothing of the kind is claimed and the description of their use (see patent, page) expressly makes them applicable to all circular saws.

The validity of the patent, so far as the use of deflecting plates is concerned, rests upon the simple question whether the *duplication* of a well-known mechanical appliance is an invention.

The sole object of these plates being to protect the surface of the saw from friction, is it not obvious that if it is an advantage to protect one side, it may be as well to protect the other? It is submitted that such an addition is not an invention, and that it was of no use or value.

Henry B. Renwick, a well-known expert, testifies on the subject as follows (page 43 of record):

"Henry B. Renwick, of the City of New York, "being duly sworn, deposes and says that he is the "same person who has heretofore made two affi- "davits in the above-entitled case; one sworn to be- "fore E. Stephenson, notary public, on the 12th day "of May, A. D. 1870, and the other before Wm. "Clitus Witter, on the 20th day of May, A.D. 1870, "and that he to-day has examined a certified copy "of Letters Patent of the United States, granted to "M. Andrews and J. Sproat, December 31, 1839, "and that in said patent is described a deflecting "plate for the purpose of keeping the sawn mater- "ial from contact with the side of the saw, said de- "flecting plate being substantially identical with one "of the deflecting plates described in the patent No. "10,965, granted to Myer & Eunson, and performing "the same duty,

"Deponent further saith that the deflecting plate "on one side of the Myer & Eunson saw performs "precisely the same duty as the plate upon the "other side of the saw, and that after a deflecting "plate has been used upon one side of the saw, it "requires no invention to apply another plate per- "forming precisely the same duty upon the other "side of the saw; that such second application is a "mere duplication of the first, in the same manner "as would be the making of a window in one side "of a room where a window had been already made "in another side, or the placing of struts on both "sides of a wall to support it after struts had form- "erly been applied upon one side of a wall.

HENRY B. RENWICK.

(*b.*) The construction and arrangement of clamps was not new.

The patents of Pearson Crosby of 1841 and 1851 (pages 76, 85, of record) and of Belford (pages 75, 76) both describe devices for the djustment of feed rollers in re-sawing machinery, accomplishing the same purpose as that sought by the feeding mechanism and clamps described in Myer's & Eunerson's and the feeding mechanism and clamps of complainants' machine was not invented until after 1852. The caveat (pages 34 and 35 of record) makes no mention of the clamps.

The patent of R. R. Throckmorton, issued May 1, 1845, number 4017, shows the application of feed rollers and clamps to the edge of the circular saw.

In the patents of Throckmorton, Belford and Crosby, all the arrangements for the adjustment of the feed rollers with reference to the face of the saw for the purpose of guaging the thickness of the wood to be sawn or accommodating the machine to boards of different thicknesses are anticipated. This is apparent upon comparison of the different specifications, and shows the fourth claim of the patent in suit to be invalid.

Third Point.

The machine used by the defendants did not infringe the patent.

The defendants' machine had four adjustable feed rollers, and in front of them (see model) a pair of carved clamps, the object and only practical effect of which was to hold the upper edge of the board while in contact with the saw in proper position. They differed in form, method of attachment, pur-

pose and use from those decribed in the complainants' patent.

The clamps described in the patent are "attached "to the inner ends of the beds, F F, (the roller beds,) "so that at the back part of each clamp were two "journals, *e*, *e*, fig. 1 ; these journals fit in boxes *f*. *f*, "which work or slide in recesses in the top and bot- "tom pieces of the beds."

The action of these clamps is governed by set screws bearing against india rubber springs back of the boxes stops marked M M are arranged to regulate the distance of the lateral vibration of the clamps, and the object of this arrangement is, as stated in these cond claim of the patent, "to give these clamps arranged as herein shown" the ability to have a lateral, elastic and and vibratory movement, independent of the roller beds, for the purpose of compensating for the varying thickness of different pieces of stuff, and keeping them in a proper relative position to the saw.

In the machine used by defendants, the clamps have no lateral, elastic or vibratory motion independently of the roller beds, and cannot perform the functions of those described and claimed in the patent (see model Exhibit 5, deposition of Henry B. Renwick, record pages 39–41). Mr. Renwick (page 41 of record), after a full explanation of the construction and operation of the two machines, sums up his opinion as follows :

"Deponent is in doubt as to what is the invention "specified in the fourth specification of claim of "the patent to Myers & Eunson ; the parts there "claimed in combination will not permit 'the stiff- "'ened or rounded side of the saw' to be "'made the line side,' unless there be also a de- "flecting plate upon the stiffened side of the saw. "When such stiffened side is thus made the line "side, and the ends of the clamps embrace the saw "as described in Myers & Eunson's patent, then it "is useful, if not absolutely essential, that the

"clamp upon the line side should have a lateral "elasticity with respect to the bed, and also the "swinging motion.

"In the respondents' machine, as illustrated by "the model marked 'H. B. R.,' and in that of John "Dunbar, neither the clamp on the line side or the "other clamp have a lateral elasticity with respect "to the roller bed, or a swinging motion, and one of "them—that on the line side—has no lateral motion "whatever when the machine is at work. What- "ever may be the invention specified, under the "fourth head in patent No. 10,965, the combination "of parts therein set forth certainly includes the "clamps—that is, clamps constructed and operating "substantially as described in the patent—and if "those clamps are wanting in respondents' machine, "as they are, then the respondents' machine cannot "contain the invention described in Myers & Eun- "son's patent, and specified in the fourth claim "thereof, and deponent believes that it does not "contain said invention.

"The machine of respondents has no knives or "cutters for removing stub shot, and does not con- "tain the invention specified in the third claim of "Myers & Eunson's patent.

"As a summary of the whole, deponent believes "that the invention specified in the first claim of "Myers & Eunson's patent was described and "published in 1847, and that respondents' machine "does not contain the inventions described in said "patent, and specified in the second, third and "fourth claims thereof."

Mr. Renwick further testifies (pages 42–43 of record) that the adjustment of clamps and feed rollers described in Myers & Eunson's patent is identical with that of the Pierson-Crosby patent of 1851.

This difference between the two machines is also conclusively proved by the evidence of Phillips [defendant's sawyer] (page 141 of record). He says: "When I had the clamps on the saw and put a thick

"board in and got as far as the rollers nearest the "saw, if the next board was one sixteenth of an "inch thinner, I had to use both hands in adjusting "the clamps and belting the thick board out. All "I have to do now is to adjust the roller bed with "one hand."

Referring to the model of defendant's machine, it will be seen that the *faces* of the clamps are always parallel, and that each clamp moves only with the roller bed to which it is attached, thus requiring adjustment by the sawyer for each board passed through, if the boards vary in thickness, while the clamps described in the patent are intended to act automatically; the essential difference is, in the independently elastic lateral and vibratory motion which the complainants' clamps have and the defendant's have not.

The difference between the complainants' and defendants' machines in this respect is so marked as to deprive complainants of any right in regard to the latter.

See Corn Planter Patent, 23 Wal., 181.
Mason *v.* Graham, 23 Wal., 261.

Fourth Point.

The Court erred in sustaining the Master's report as to alleged profits.

And upon this we submit the brief used before the Court below, as follows:

The facts are as follows:

Defendants, in 1863, purchased from Roff & Huntington a circular re-sawing machine, consisting of a circular saw composed of segmental plates bolted upon a central plate, set in a frame upon the forward part of which were two pairs of adjustible vertical feed rollers; on each side of the saw was

a deflecting plate, and attached to the forward rollers was a pair of clamps, intended to hold the upper edge of the board, being sawed close to the edge of the saw; behind the saw was a curved piece of metal, of V shape, in section, intended to protect the workmen who receive and carry away the sawn stuff.

The complainants, having a patent, sue for infringement.

In their patent and in their bill they claim, as their exclusive right, the use of *one* or *two* deflecting plates and of the clamps.

Upon the trial, it was shown that the application of *one* deflecting plate to a circular saw was known long before the alleged invention of Meyers & Eunson, and they filed a disclaimer, reducing their claim to the use, in combination, of *two* deflecting plates.

It was held that the defendants had infringed the patent by the use upon their machine of *two* deflecting plates and the clamps, and the defendants are required to account for and pay to the complainants the profits they (defendants) have realized, in consequence or by means of this infringement.

Roff & Huntington, the manufacturers, who had constructed and sold fourteen, or more, of these machines, were sued by the assignees of the complainants, and settled with them by paying $1,650, a little over $100 for each machine, and the penalty was thus exacted and received upon the very machine in question (see testimony of Roff, page 136 of record).

Complainants issued licenses for the use of machines made according to the patent, brought suits against parties charged with infringement, and made settlements. The prices charged by them ranged from $20, the lowest, to $2,500, the highest (see testimony of Eunson, pages 125, 126 of record). This adoption by the complainants of a license fee, furnishes the means of profits adopted by the vendor (the patentee), who has the best means of

knowing to what extent his improvement increases the value of a well-known device or process, fixes a market price.

Seymour *v.* McCormick, 16 How., 480.

And the payment of such a license fee or damages by the manufacturer of the machine vests in the owner of the machine the right to use it.

Sickles *v.* Borden, 3 Blatch., 536.
Spaulding *v.* Duff, 1 Sawyer (9th Circuit), 702.

Upon the decision of the case, in May, 1871, the defendants were enjoined from using the clamps and two deflecting plates. They, in obedience to the decree, removed one of the deflectors and the clamp, and continued to use the machine.

It did the same work, with the same power, and the same attendance, after the removal of these appliances, as before.

Vide, testimony of Scovill, 137-8; Schureman, 139; Jaycock's, 140; Acker, 140; Phillips, 141-142; Schmidlin, 143; Carnduff, 143; corroborated by Lyon, 144; Staats, 145; Hamilton, 145-6 of record.

The defendants kept an accurate account of all the re-sawing done in their establishmet during the period of the infringement, and have presented it.

It shows the amount of work done in each month.

A considerable portion of the re-sawing done in defendant's establishment was done with the upright saw—how much exactly cannot be ascertained—because the amount of all re-sawing was kept in one book, and the amounts done, respectivety, by the different machines not stated.

The only evidence on the subject, and it was the best attainable, was that of the sawyer, Mr. Phillips, who had charge of both machines during the whole period of the alleged infringement, and who has testified, to his recollection, of the amount of

work done by the machines respectively, he having full knowledge of the facts at the time of their occurrence. He was examined as a witness by complainants.

The questions of fact presented for determination by the Examiner were:

First.—What profits, if any, have the defendants realized from the use of the infringing machine?

Second.—What portion, if any, of the profits was due to the use on the machine of the clamps and the second deflecting plate?

Before the Examiner, the complainants called for and defendants produced all their books of account for examination. Among these were two small pass books (Exhibits B and C), the contents of which appear in defendants' testimony, but the same has not been printed by complainants, but which appears in the report (page 163 of record), in which an account was kept of all re-sawing done in their establishment during the period covered by the decree. By these books it appeared that the total amount of lumber re-sawed was 8,293,444 feet.

The defendants did not do re-sawing for others, but used the machine, with several others, in their business of box making. They never received any payment for re-sawing, and the profits, if any, due to the work of the infringing machine, were not distinguishable, nor was any attempt made by complainants to distinguish them from the general earnings of the business.

Defendent's had for their own convenience, entered in these pass books against the amount of re-sawing a price which they supposed to be the market price for such work (see these Exhibits). But these statementswere purely imaginary (see Master's third additional finding on request of defendants).

The complainants were furnished by defendants, with all their books and accounts, and with all

the information in their possession bearing upon the questions—how much work was done by the machine in question, the value as realized, and the cost of doing it, and also the means for ascertaining how much of the efficiency of the machine was due to the uses during the period covered by the decree, of the clamps, and in combination of two deflecting plates.

The Master arrived at the conclusion that 24-25ths of the re-sawing done by the defendants, or 7,740,143 feet was done on the circular saw (vide. 2d finding, p. 163 of record), charges defendants with this amount of work, at the rate of $3 per thousand, amounting in all to $26,237.94, and allows defendants, as expenses, $17,217, reporting as profits recoverable by plaintiffs the balance, $9,120.94. Both parties have excepted to the report.

As to complainants' exceptions.

First Exception.—Which relates to claims for interest.

No such claim was made on the hearing, nor is there any foundation for the exception. Profits being in lieu of damages, interest could not accrue until after liquidation.

Mowry *v.* Whitney, 14 Wallace R., 620.

Second Exception.—No such claim was made on the hearing—could not have been allowed if it had been—nor was any proof offered in regard to it. The claim would be inconsistent with the rest of couplainants' case, as the value of the machine in question is supposed to consist in part of a diminution of saw dust.

Third Exception.—This was unsustained by any evidence whatever in the case.

The same remarks apply to the fourth exception.

The plaintiff's fifth exception is untenable. The taxes in question accrued, became due and were liens during the period covered by the decree.

They were subsequently paid and were properly allowed.

(Defendant's exceptions.)

The defendants requested the Master to make certain findings, most of which he refused.

They have excepted to his findings and refusals.

This brief being intended to supplement the oral argument on which the defendants' exceptions were argued in detail, it is proposed only to call the attention of the Court to the more prominent and important questions involved.

I.

The Master erred in his finding that 7,740,143 feet was cut on the machine in question.

The only positive evidence on the question was that of Phillips, the sawyer (page 141, of record). He testifies, from positive knowledge, that during the first three years covered by the decree—that is to say, from July, 1863, to July, 1866—the circular saw did but one-half of the re-sawing done in the establishment. During the next three years, from July, 1866, to July, 1869, the circular did two-thirds ($\frac{2}{3}$) of the work. The total amount of re-sawing done in defendant's establishment during the period covered by the decree (vide. Master's second finding, p. 163, of record) was 8,093,444. Phillips' statement on this subject is fully explained. During the first period the circular saw in use was but thirty-two inches in diameter. This could not be used for boards over thirteen inches wide, or one and a quarter thick. The blades of the saw were subsequently enlarged to a diameter of forty-two inches, increasing its capacity, and still later, it was enlarged to fifty-four inches, for the same purpose.

The Court will, doubtless, remember from the proofs in the original case, as well as upon this accounting, that the circular saw cannot be used upon a plank the width of which is more than one-third the diameter of the saw. These changes furnish full and sufficient data for Phillips' testimony. The reciprocating saw was in use all the time, and could cut planks of any width or thickness. The evidence of Phillips is positive, based on actual knowledge. Against it there is nothing but a series of guesses, based upon no positive data whatever. Correcting the statements as to amounts sawed, by the data furnished by Phillips, it will be found that the amount of work to be credited to the circular saw was sixty-six and a half per cent. (or about 5,280,486 feet).

II.

The Master erred in putting any price upon this work. There was no evidence in the case that defendants ever received any compensation for doing this work, except as an element earned in doing their general business. They did not do resawing for others. But assuming that the amounts which they entered upon their memorandum books were chargeable against them, the average was $2.75, and not $3, which would reduce the total amount of earnings of the machine to $14,500, being $2.75 per thousand on 5,280,000 feet.

III.—Expenses.

The principal error of the Master objected to is as to the allowance for power.

The defendants owned a boiler, engine and appurtenances, and produced the power necessary to run the machine in question. The actual cost of producing this power was not ascertained, and could not be. Its actual value—*i. e.*, what it is worth and would sell for in that locality—was shown to be fifty to seventy cents per day per horse power. (Evidence of Dunbar, page 107; Carpenter, page 147; Miller, page 148 of record.) The theory upon which the Master reached the conclusion stated in his report seems to be that defendants must be charged with all the resawing done in their establishment, and must trace and prove every item of expense down to the machine. This is absolutely impossible. The production of power by the use of a steam engine and its appliances is a part of their business not necessarily connected with this machine. For its application to the operation of this machine, they are entitled to be allowed its fair value, just as a manufacturer of metals would be allowed the market value of material if he used that material when manufactured in the construction of a patented article. The power required to run this machine was ten horse. (Evidence of Phillips, page 113 of record.)

It was run not less that four hours per day (evidence of Phillips, page 113 of record), charging at the rate of sixty cents per day per horse power, and for four hours per day—ten-horse power. The expense of this item alone is $750 per year, making the amount for this item, for the period embraced in the decree $6,060.

IV.

The complainants' patent is not for and does not cover an entire machine. It is, for two specific de-

vices applied to a machine for re-sawing boards. It is indisputable that defendants, in common with all the rest of the world, had the right to use, at all times, a re-sawing machine, consisting of a circular saw composed of blades bolted upon a stiffening plate or flange, with vertical adjustable feed rollers and a deflecting plate upon one side of the saw. All these features were well-known and free to be used independently of complainants' patent. (See Belford's English Patent; Pearson Crosby's Patent; Throckmorton's Patent; Andrews & Sproat's Patent.)

The complainants' patent, by its claim and the opinion and decree in this cause, is not for any re-sawing machine, as a whole but for the application to such a machine as above described, of two devices:

First.—A pair of curved clamps, attached to the frame-work of the forward pair of feed rollers.

Second.—Of putting on two deflecting plates instead of one.

The usefulness of these devices can be appreciated, upon a little consideration of their actual operation:

First.—The clamps. The only office which these can perform is to guide the upper edge of the board, as it emerges, from the feed rollers, which are close up to the edge of the saw, until the saw is in contact. The possible danger of injury, which it obviates, is that to the few inches of the board projected before the cutting commences, and the measure of its usefulness, which should be affirmatively shown, is the difference between the number of boards which would be injured to this extent without it, and are saved by it. Narrow boards, such as alone could be sawed on a thirty-two or forty-two inch saw could not possibly be affected by it.

Second.—Deflecting plate. The only use of deflecting plates is to save the saw from heating and buckling. The quality of the work done is not affected by it. The measure of its usefulness, if any, is the greater length of time the saw can be run continuously without heating. These two elements, constituting the whole of the complainants' alleged invention, and there being a complete and useful machine without them, it is incumbent on the complainants to show the profits realized by defendants from the use of these appliances. They have failed to show any profit or advantage from the use of these appliances, while defendants have affirmatively shown that the machine has been, can be and is as effective and useful without these appliances as with them.

"It is only the profit arising from the sale of what is patented that the complainants should be allowed."

Woodruff J. Hitchcock *v.* Tremaine, 9 Blatchford, 389.

"It is the additional advantage the defendant derived from the process—advantage beyond what he had without it—for which he must account."

Strong, *J.*, in Mowry *v.* Whitney, 14 Wallace, 649.

And see to see same effect.

Gould *v.* Rees, 15 Wallace, 159.

The general rule that nothing can be recovered but profits actually realized is stated and illustrated in the following cases:

Troy Iron and Nail Factory *v.* Corning, 6 Blatchf., 352-4.
Cowing *v.* Rumsey, 8 Blatchf., 36.
Hall *v.* Willes, 2 Blatchf., 201.
Whitney *v.* Emmett, 1 Baldwin, 326.
3 Fisher, 117.
Spaulding *v.* Tucker, 1 Deady (Oregon Circuit), 655.
McCormick *v.* Seymour, 3 Blatchf., 224.
McCormick *v.* Seymour, Aff'd, 19 How., 96.

To follow p. 33

In the statement of the patentees, on their application for extension (pages 91–92), they say:

"The elastic clamps, separate in their action from "the roller beds, are also a great saving of time and "labor. If the machine requires constant adjust- "ing to the thickness of the material, the almost "unremitting attention of a single man is required, "which this part of the invention obviates. "For if a clamp independent of the roller "bed is not used to hold the material un- "til the very last portion is sawn, it al- "most universally follows that upon the introduc- "tion of a piece of material into the roller bed thicker "than the one then held, that the clamp fails to hold "the latter piece of lumber with sufficient firmness, "and the end of the piece is rendered useless by be- "ing irregularly cut or by splitting.

"The amount of this useless portion of course "varies according to the difference, variations of "the thickness of the material used, and the dis- "tance of the nearest holding portion of the roller "beds from the saw; and though very material can- "not be valued accurately by any general estimate.

"But suppose that only a single inch in each thir- "ty foot board is saved by the use of these inde- "pendent, self-adjusting clamps, the total saving in "money with a machine which saws 12,000 feet per "diem, at $60 per thousand feet, will be about "$2.00."

Here we have the patentees' own statement of the *money value* or possible profit to the user of the machine of the clamps, and it is just *sixteen and two-thirds cents* per thousand feet of lumber sawn.

Supposing the amount of work done by the machine of defendants was, as bound by the Master, a little under eight million feet, the whole benefit to the defendants, measured by the patentees' own standard, was under $1,300, and this without deducting anything for expenses.

The Master allowed *three dollars* per thousand feet—twelve times as much as the patentees' claim. But, in fact, as shown hereafter, the amount of work done was only about five and a half million feet.

Sickles *v.* Borden. 3 Blatchf., 543.
Dean *v.* Mason, 20 How., 203.
Mayor, &c., *v.* Rawson, 23 How., 489.
Rubber Co. *v.* Goodyear, 9 Wall., 802.

V.

On the particular machine in question royalty was paid by the manufacturer. (Testimony of Roffe, page 56, folio 166.) This precludes complainants from recovering for subsequent use.

Sickles *v.* Borden, 3 Blatch. 536.
Spaulding *v.* Duff, 1 Sawyer (9th Circuit), 702.
Gilbert & Barker M'f'g Co. *v.* Bussing (Circuit So. Dis't ofN. Y., Woodruff, *J.*, Mans, Jan. 1875.)
Barnum *v.* Goodrich (No. Dis't Ills., Drummond, *J.* July 1873, Mans.)
Andrews *v.* Logan, 2 Fisher, 170.

Fifth Point.

Upon all the evidence, it conclusively appears that the appellants derived no profit or benefit from the use of the devices claimed in the patent, and, therefore, there should have been no recovery against them.

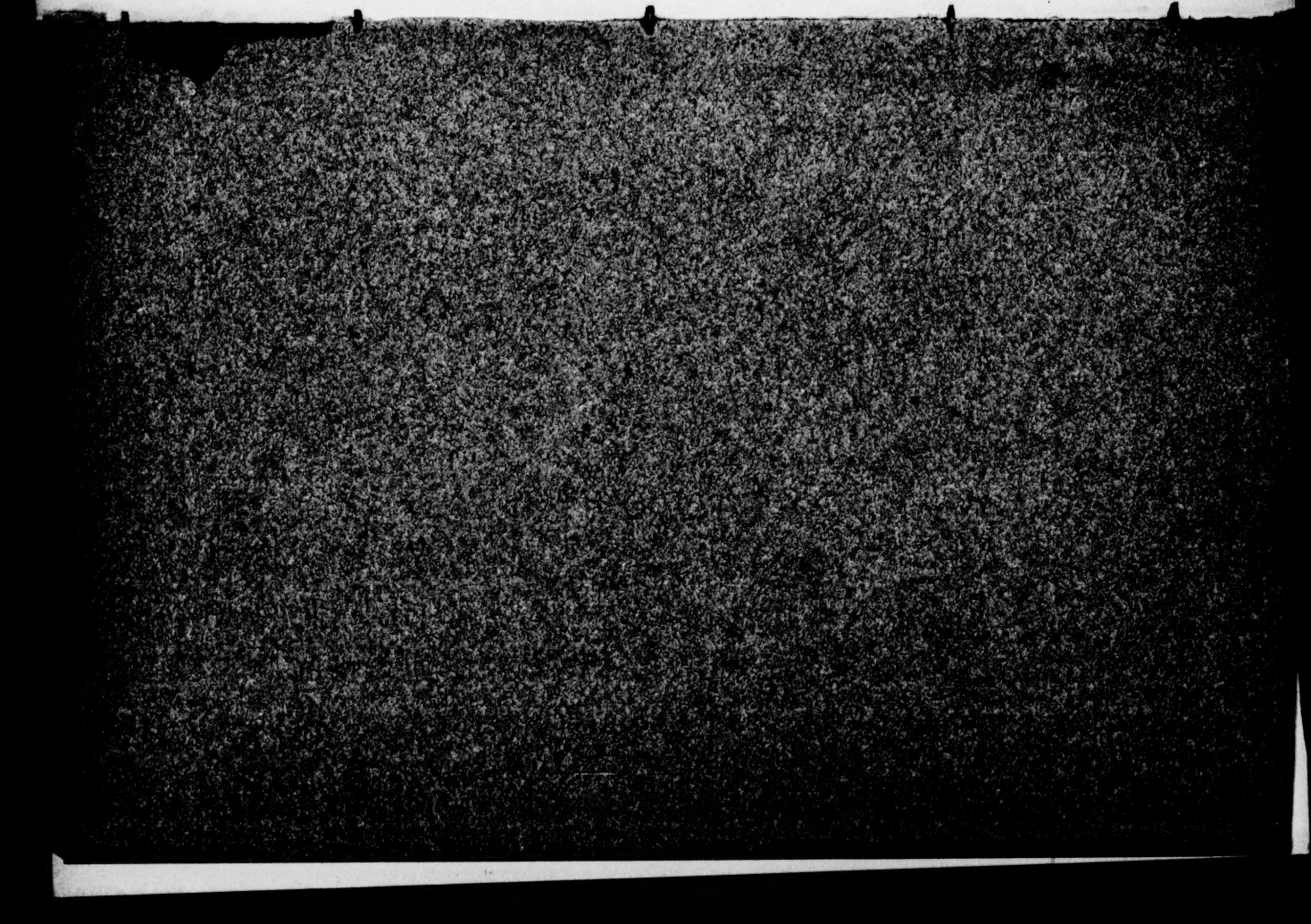
The well-settled rule of law as to *profits* recoverable by patentee is: that the benefits or advantages due to each part of the invention as claimed must be *proved*, not estimated or guessed at. In this case there is no evidence of any profit received by the defendants from the use of any of the devices covered by the first, second and fourth claims, and there is conclusive evidence that they did not derive

any profits; in fact, that the devices were useless. (See testimony of Phillips, Schureman, Scovill, Acker, Schmidlin, Carnduff, Lyon, Staats, Hamilton, cited above.)

Littlefield *v.* Perry, 21 Wall., 205–225.
Packet Co. *v.* Sickles, 19 Wall., 611.

It is respectfully submitted that the judgment should be reversed.

CHARLES F. BLAKE,
SAMUEL J. GLASSEY,
Of Counsel for Defendants and Appellants.



UNITED STATES SUPREME COURT.

IN EQUITY.

No. 123.

JOHN DUNBAR, ET ALS., APPELLANTS,

v.

MARGARET MYERS, EXECUTRIX, ET ALS., APPELLEES.

POINTS FOR APPELLANTS.

UNITED STATES SUPREME COURT.

JOHN DUNBAR, *et als*,
Appellants,
vs.
MARGARET MYERS, Executrix,
et als.
Appellees.

Points for Appellants.

Upon the accounting in this case, the complainants called E. W. Roff, who testified that he made the Dunbar machine alleged to infringe. Upon cross-examination, he testified, without objection on the part of the complainants, that in 1868 he compromised with J. Lagowitz, who held an exclusive license from the patentees for the State of New Jersey, for sixteen hundred and fifty dollars, which covered all the machines built by him up to that time.

It is not averred in the bill, or proved, that the complainants, or either of them, are, or ever have been, manufacturers of saws, or that they have carried on the business of resawing.

We contend that upon this state of facts the settlement of Lagowitz worked a license to the vendees of the saws settled for to use the same.

In the suit of Gilbert *v.* The Barker Manuf. Co., a copy of the decision in which is annexed hereto,

Judge Woodruff inclined to hold that when there had been a final decree against a manufacturer, and the amount had been paid, the result would be an indirect affirmance of the sales made and accounted for, or a satisfaction of the damages.

A like question arose in England in 1866. The Lord Chancellor held that an accounting on the part of a manufacturer does not license the goods in the hands of all purchasers. This holding was afterwards reviewed on appeal, the Court deciding that the patentee could not recover from the manufacturer for the use of the invention which had already been paid for by the user.

Penn *v.* Bibby, L. R., 3 Eq., 308.
Penn *v.* Jack, L. R., 5 Eq., 81.

In the sait of Barnum *v.* Goodrich, where a decree had been had against a manufacturer, Judge DRUMMOND enjoined suits against his customers pending the accounting.

These cases all go to this point, that a patentee shall be paid once for his invention and no more. It is of course subject to exception, as when the patentee keeps his invention as a strict monopoly, or when, as in the case of the Woodward planing machine patents, the right to make and the right to use were the subject of distinct licenses.

In this case, it is clear that the complainants sought their profit from the invention in the sale of licenses.

They received from Lagowitz for the State of New Jersey $200, and a contingent sum of $300, in case of the extension of the patent.

Under this license Lagowitz collected $1,650 from Roff & Huntington, the builders of one saw.

They granted a right to use one machine in New York for $300, which included the expenditure by them of $185 in fitting up the saw.

They sold the right to use one machine in Birmingham, Pa., for $500.

Kenyon & Newton paid $300 for the use of a machine like Dunbar's.

Hamilton, of Buffalo, paid $225.

Bronson, of Rochester, paid $500.

Kingsford, of Oswego, paid $2,500 for three machines.

Peddie, under the stress of this litigation, paid $4,500 for past use and a license.

Foster and Davis paid $600, and Duryea $400, but it does not appear for what.

And a large number of licenses were granted at sums under $100.

It thus appears that the patentee's system was a system of license fees.

Now, in such a case the acceptance of first payment from a manufacturer is one eminently fit for the application of the doctrine, of Penn *v.* Bibby, and of Gilbert & Barker Co. *v.* Bussing.

If, however, the payment by the manufacturer does not release the machine, then we insist that a fair license fee should be the measure of recovery.

This Court, in the following language, used in Packet Co. *v.* Sickles indicated plainly its sense of the danger of the old rule of profits:

"The rule in suits in equity, of ascertaining by a reference to a Master the profits which the defendant has made by the use of the plaintiff's invention, stands on a different principle. It is that of converting the infringer into a trustee for the patentee as regards the profits thus made; and the adjustment of these profits is subject to all the equitable considerations which are necessary to do complete justice between the parties, many of which would be inappropriate in a trial by jury. With these corrective powers in the hands of the Chancellor, the rule of assuming profits as the groundwork for estimating the compensation due from the infringer to the patentee has produced results calculated to

suggest distrust of its universal application, even in courts of equity.

Certainly any unnecessary relaxation of the rule we have laid down in cases at law, where the patentee has been in the habit of selling his invention, or license to use it, so that a fair deduction can be made as to the value which he and those using it have established for it, does not commend itself to our judgment, nor is it encouraged by our experience."

Packet Co. *v.* Sickles, 19 Wall, 617.

The sensible conclusion seems to be this: We are inquiring what are the fair profits due to the deflectors and the clamps of the patent. Nothing definite can be learned regarding their advantage, except that in our hands the machines ran perfectly well without them for more than a year. If they have been useful to us, we do not know how; nor have the complainants proved it. It does appear that the complainants were content to sell shop rights at various rates, all far below the recovery here. And this, we submit, is evidence from them of their own estimate of the money value of the use of the devices

CHARLES F. BLAKE,

Of Counsel with Appellants.

Circuit Court of the United States, 1

FOR THE SOUTHERN DISTRICT OF NEW YORK.

THE GILBERT AND BARKER MANUFACTURING COMPANY

vs. 2

ABRAHAM BUSSING.

WOODRUFF, *Circuit J.*

The complainants heretofore filed their bill in this Court against OAKES TIRRELL, in which they charge him with infringing their patent by the manufacture and sale of gas machines, the exclusive right to the manufacture and sale of which they claim under their patent. The 3
decision in that case sustained the complainants' patent, and held Oakes Tirrell an infringer. Thereupon an interlocutory decree was entered, requiring the said Oakes Tirrell to account to the complainants for all gains and profits made by him by the manufacture and sale of such infringing machines, and for all damages sustained by the complainants from the infringement of their patent by the said Tirrell. That interlocutory decree is 4
in full legal force, and may be carried into execution so that the complainants may have a final decree for such gains, profits and damages.

I am inclined to think, that if that final decree were made, and the amount which should thereby be awarded to the complainants should be paid, it could be held an indirect affirmance of all sales made and accounted for, or a satisfaction of the damages resulting

5 from such sale, so that as to the particular machines so made and sold there would result to the purchaser a right to hold and take the benefit of his purchase.

Possibly the question, whether demanding and receiving from Tirrell the mere profits of the manufacture and sale, would include the profits of the *use* of the machine might arise; but in general, the sale of a machine to a purchaser for use carries with it the right to use it, the presumption being that whatever license fee or compensation for the use is due to the vendor is included in the
6 price, so when a patentee claims and recovers, not only the actual gains and profits of the manufacture and sale, but all the damages which he has sustained therefrom, it is at least to be presumed that such recovery embraces all the profit which the patentee would have received had he made and sold the machine to such purchasers with the like incidental or consequential right to use it. I do not, however, mean to affirm that a patentee may not have a decree against him who manufactures and sells an infringing machine, and also a decree against the pur-
7 chaser thereof, enjoining such manufacture and sale and also enjoining the future use of the infringing machine, but only that the patentee cannot take compensation for the infringement, including manufacture, sale and use, and thereafter enjoin that use for which he has taken compensation. The patentee in such best supposed case would stand very much in the condition of one who sues in trover for the value of his property wrongfully converted, and recovers and receives such value and compensation for his damages. He thereby so far affirms the
8 conversion that his title to the property is gone.

But to effect this something more than the bringing of the action and more than a verdict assessing damages is necessary. There must be satisfaction.

An analogous rule, I think, applies to this case. The complainants brought their suit and have established their title as against Oakes Tirrell to full compensation. But they have not received such compensation; *non constat* they ever will. On the contrary, the proof on this motion is that he is insolvent, and, if so, a final decree against him may be of no value. Such interlocutory

decree ought not, therefore, to be regarded as any 9
defense to the purchaser from Tirrell. Upon the case made by the bill both Tirrell and the defendant were *tort feasors.* Nothing has occurred by reason of which the defendant is enabled to say that he has acquired a right to use the infringing machine.

Until the complainants have received some compensation or satisfaction which will operate to vest such right in the defendant, he stands undefended, assuming, of course, the validity of the patent.

On the other hand, I think the complainants can 10
be fully protected without an unqualified injunction *pendente lite.* The defendant is not engaged in manufacturing and selling, and does not, therefore, interfere with the business of the complainants by competition or otherwise. He is not injuring their business or impairing the present value or profits which they derive from their monopoly. He has a single machine, connected with and used for lighting his private residence. It would be a great inconvenience to him, and, so far as I
can perceive, of no legitimate advantage to the com- 11
plainants, to compel him to discontinue that use while this suit is pending, especially as the decree which the complainants may, if they so elect, have against Tirrell may be fully paid and satisfied in such wise that it might operate as satisfaction of the entire wrong, in which both Tirrell and the defendant are participators. The complainants may be secured ample indemnity, and so the order of the Court will work no hardship.

I do not mean to intimate that on the final hearing the
complainants may not be entitled to a perpetual injunc- 12
tion against the defendant. The complainants cannot be compelled, against their will, to permit the defendant to use their invention.

All that I mean to hold now is that the complainants can be fully indemnified for that use pending this suit, and that I am of opinion that such indemnity will protect them, without subjecting the defendant to needless inconvenience and expense, until his rights can be considered and decided on a final hearing.

Neither the moving papers nor those read in opposition

13 to the motion give much information as to the amount of security which should be required, and if the complainants deem the amount which I suggest an insufficient protection, I will hear the parties on the settlement of the order, which will be that an injunction issue, unless the defendant, within twenty days after service of the order on his solicitor, files a bond to the complainants, with two sufficient sureties in the sum of fifteen hundred dollars, conditioned for the payment of whatever decree may be rendered against him in this suit.

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Supreme Court of the U. S.

Appeal from Circuit Court for the Southern District of New York.

No. 123.

JOHN DUNBAR AND JEREMIAH HOPPER,
Defendants and Appellants,
vs.
MARGARET MYERS, EXECUTRIX OF JOHN MEYERS, DECEASED, AND EUGENE S. EUNSON
Complainants and Appellants.

No. 737.

SAME COMPLAINANTS,
Appellants,
vs.
SAME DEFENDANTS,
Appellants.

STATEMENT AND BRIEF FOR MYERS & EUNSON.

FREDERIC H. BETTS, *Counsel.*

NEW YORK:
BENJ. H. TYRREL, LAW PRINTER, 74 MAIDEN LANE.
1876.

BENJ. H. TYRREL, LAW PRINTER, 74 MAIDEN LANE.

Supreme Court

OF THE UNITED STATES.

ON APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES.

FOR THE SOUTHERN DISTRICT OF NEW YORK.

MARGARET MYERS, Executrix, &c., of JOHN MYERS, deceased, and EUGENE S. EUNSON.

vs.

JOHN DUNBAR and JEREMIAH HOPPER.

STATEMENT OF FACTS.

This suit is one in equity for an injunction to restrain the infringement of letters patent, granted to John Meyers and Robert G. Eunson on May 23, 1854, for an "improved machine for sawing thin board," or "resawing." The patent was extended for seven years from May 23, 1868. This patent was

before this Court in *Eunson* v. *Dodge*, 18 Wall., 414 in which case the defendant succeeded in establishing a license.

The bill is in the usual form, alleging the grant, the extension of the patent, assignment to the complainants, the filing of a disclaimer, the infringement by the defendant, and prays an injunction and account of profits.

The answer admits the grant and extension of the patent, denies any knowledge as to the assignment to the complainants, admits that the defendants have used a machine for sawing thin boards, but denies that they have infringed the patent.

The answer further alleges that if the patent is construed so as to cover the defendants' machine, *then, and to that extent* it is void for want of novelty, on account of the alleged prior knowledge and use of the large number of persons named, to wit:

Daniel Doncaster, of Albany; James Hay, James Moses, Henry McGoffin and Charles Turner, of Cohoes, New York; Isaac Smith, John W. Lyman, Wm. O. Robbins, E. W. Roberts and John Frame, of New York.

The answer further alleges prior publications of the patentees' invention in Holtzapffel's mechanical manipulation of 1847; in English patent of Belford, of 1853; in the reissued patent of Pearson Crosby, on the 28th day of April, 1857, and the original patent of Crosby, dated April 8, 1851.

By an amendment to the answer, alleged prior knowledge of the invention by C. M. Whiting and George W. Cook, of Philadelphia, Alvah Metcalf, of Ashland, Mississippi, and Wm. Rockwood, of Franklin, Mississippi, and an alleged prior

publication in the patent of Andrews & Sproat, of 1839, was set up.

Replication was duly filed and proofs taken.

The defendants called no oral witnesses to establish the defence of want of novelty, except Daniel Doncaster. All the patents referred to by them were put in evidence.

The cause came to a hearing before the Circuit Court, Mr. Justice Blatchford presiding, at the April Term, 1871.

On May 18th, the Court rendered an opinion sustaining the complainant's patent and directing an injunction and an order of reference to a master for an account of profits. (Rec., p. 95.)

The reference before the master proceeded from June 8, 1871 to October, 1872, and on February 4, 1873, the master rendered a report computing the profits realized by the defendants from the infringement of the complainant's invention at the sum of $9,120 \frac{94}{100}$.

To this report both parties filed exceptions.

After due hearing before the Circuit Court all the exceptions of both parties to the master's report were overruled and a final decree rendered on the 1st day of June, 1874, decreeing that the complainants do recover of the defendants the amount of the master's report, with interest, amounting to the sum of $9,807 \frac{26}{100}$.

From this decree both parties appeal to this Court.

The defendants appeal from the whole decree.

The complainants appeal from so much of the decree as overrules the complainants' exceptions to the master's report.

The case comes on to be heard in this Court on such appeals.

STATEMENT OF ALLEGED ERRORS OF THE CIRCUIT COURT.

The complainants contend that the Circuit Court erred in overruling the complainants' exceptions to the master's report.

These exceptions were based upon alleged errors of the master in several particulars.

1. That the master omitted to charge the defendants with interest upon the amount of profit realized and received by them.

2. That the master omitted to charge the defendants with the amounts received by them from the sale of sawdust made by the infringing saw, as tending to reduce the expenses of operating the same.

3. That the master allowed and credited to the defendants certain sums for interest on the cost of the defendants' saw.

4. That the master allowed and credited to the defendants as part of their expenses, payments made by them for taxes, assessments, &c., falling due in 1867 and 1868, but not paid until after the period of the accounting closed.

The other exception urged by the complainant in the Circuit Court was to a pure finding of fact by the master, which, we suppose, this Court will not look into, and is, therefore, not here pressed.

Points in behalf of the Complainant in opposition to the Appeal of the Defendants, and in support of the Complainants' Exceptions in the decree below.

The points to be considered are as follows:

I.—The construction of the complainant's patent.

II.—The infringement of the defendant's.

III.—The validity of the patent.

IV.—The rule of accountability of the defendants

1—The construction of the Complainant's Patent.

The patent can only be properly understood and its importance estimated by a review of the state of the art at the time of the invention of the patentees.

The machine that Myers & Eunson invented is intended for slitting boards through the line of their width and in the direction of the grain of the wood. The term "re-sawing" is applied to this operation when the boards which are re-slit are of any considerable size, adapted for such purposes as cabinet work boxes, mirror and picture back frames, &c.

The record of patents and publications prior to the grant of Myers & Eunson patent disclose the fact that prior to their invention there were in use three kinds of machines adapted for slitting lumber through the line of its width as follows:

1. *The upright reciprocating saw, with roller-feed.*

This saw is illustrated by the patent of Pearson Crosby of 1841. (Exhibit No. 3 p. 76.) It could be adapted to any width of board, but was slow in operation because it cut the wood only on the

down stroke, and in order to be of the requisite strength to cut wide boards was obliged to be so thick that it wasted much material in the "kerf." This upright saw was used in connection with a roller-feed.

In reference to the speed of the Upright Sawing Machine, Mr. Peck, a saw-mill owner of more than twenty years' experience, says (p. 20, q. 12):

"The speed of the Myers & Eunson Machine is about six times "as rapid as that of the Upright Machine. The difference is at- "tributed to the Myers & Eunson Machine having a circular saw "instead of a vertical one, and presenting a greater cutting sur- "face at the same time, thereby allowing a more rapid passage "of the board through the saw, the feed being continuous. The "Upright Saw cannot be fed continuously, as the board must "remain at rest while the saw is passing

2. *The veneer log or block saw.*

This was a circular saw formed by screwing upon a strong flange or stiffening plate, a thin plate or segment plates of steel. This saw, from its construction, wasted very little stuff in the "kerf," the cutting blade being thin, but being rendered strong by a heavy projecting centre or flange. It was, however, commonly confined to the cutting of veneers from the log or block, because the central flange, if subjected to the contact and friction of any stuff thicker than veneers, was found to heat, and injure the saw. The veneer saw was *generally* provided with a stiffener or flange on one side only, to which the saw plate was screwed; the flange side was, therefore, rounding, and the opposite side flat. The veneer saw was fed by the sliding carriage upon which rested the log or block, screwed to a side rest. The sliding carriage traveled past the saw on ways, on the flat side of the saw, carrying with it the log or block, which was so adjusted to the saw that as

the log was carried past the saw it cut from it a thin slab, which was ordinarily received upon a guide or shear board and thereby carried away from the saw. The veneer log saw was greatly defective in speed. Time was required to run the carriage or log back to the front of the saw after each cut, and to readjust the log, and, besides this, much of the block or log was lost by the process of screwing it to the side rest.

The veneer log saw and its operation is shown in the extract from Holtzapffal's work, (defendant's Exhibit 1, p. 70). A species of this saw is seen in the Andrews and Sproat patent of 1839, (defendant's Exhibit 5, p. 85). This variety was probably intended to cut, from the block, thicker slabs than veneers, and in order to relieve the flange from the friction which would ensue, it is provided with a "reliever," a thin plate of iron counter-sunk in the flange, which relieved the saw from the strain of the board on one side. If any mechanical feed, at all, was used, the rest of the block would be fastened to the side rest or travelling carriage, or other mechanical device, and kept free from the other side.

In reference to this veneer saw, with its carriage feed, Mr. Treadwell, the complainant's expert, speaks as follows: (p. 10.)

"As veneer saws were formerly used, the wood to be fed to "them was securely screwed to the side of the travelling bed, "being placed opposite to the flat side of the saw, consequently "when the travelling bed moved forward, the saw would cut a "thin veneer according to the gauge, the veneer passing off on "the side of the saw which had the protuberant stiffening plate, "and the wood, from which the veneer was cut, passed along the "plane side of the saw, with the carriage-bed, being screwed fast "thereto, as before stated. The operation was a very slow one, "because it involved preparing the wood to be fastened to the "bed, and screwing the wood to the bed by screws, which would "project from the bed into the wood far enough to hold the "wood securely against the action of the saw, and that operation "requiring that the screws should be numerous, the portion of

"the wood next the bed, of the depth of the screws, was prac-
"tically lost, or, at all events, was not suitable for market as a
"board.

"These machines are still used for sawing machines from hard
"wood, because the bed-feed and the screwing of the wood en-
"ables a very thin veneer to be cut with great accuracy from
"hard wood."

And Mr. Eben Peck says (p. 20, q. 20):

"The roller feed is capable of producing about five times as
"much lumber per day as the carriage feed, with the same kind
"of saws."

3. *The third species of saw was the circular saw fed by hand power.*

This was ordinarily a solid plate of steel fastened on to a central shaft. If large enough to slit any but the narrowest boards, it presented so much side surface to the wood that it soon became heated and useless. In order to be strong enough for its work, it also was requiredto be so thick as to waste much wood in the "kerf." This saw, prior to Myers & Eunson patent, as we shall see, had not been successfully used with a mechanical feed, having been before that time only used for slitting very narrow stuff.

Mr. Peck is asked (p 19, q. 3 and 6):

Q. 3. What kind of machines for sawing lumber in the direction of the grain were in use prior to 1854, to your knowledge?

A. The upright re sawing machines, the log-sawing machine (*i. e.* the veneer sawing machine), and the solid plate circular bench saw.

Q. 6. In answer to question 3, you mention a solid plate circular bevel saw. What mechanism was used for feeding the stuff in that machine?

A. *No mechanical feed;* it was a hand feed.

A species of this saw, called the "swedge saw," may also be mentioned, shown in the patent of Pearson Crosby, of April 8th, 1851, (deft's. Exhibit) 4, p. 82).

This saw was *attempted* to be used for slitting or resawing lumber about the time of the Myers &

Eunson invention. It was a solid plate saw, but was formed thick in the center and gradually tapered down to a fine edge at the periphery. This saw was *intended* to be used with a roller feed, and in order to protect it from the friction of the board on each side, it was provided with a "spreader" standing *behind* the saw, which received the pieces of the sawn plank and forced them apart. It does not appear to have ever been successful, nor does the use of the spreader with any saw appear to have been successful, where anything except the narrowest lumber was used; lumber so narrow as hardly to make enough friction to require any relieving devices whatever. The reason of the want of success of the spreader, when a saw large enough to cut wide boards was required, was that the board, being compelled to pass over the whole width of the saw before the parts were deflected from it, too much friction ensued. The want of success of this "spreader" as a practical device to render possible the use of a circular saw in ordinary "re-sawing" is shown by the defendant's own witnesses.

Daniel Doncaster, of Albany, an extensive builder of wood-working machines, and one of defendant's witnesses, says he built a saw of this kind for John Gibson, of the same place, in 1851 or 1852. He is asked (p. 45, q. 16):

Q. 16. Was the sawing machine that you have mentioned built under any patent, and if so, whose was it?

A. It was built under the Crosby patent; that was the only one we knew of at the time.

Q. 17. Do you mean the Pearson-Crosby circular re-sawing machine patent?

A. Yes, sir.

(p. 47, q. 53.)

Q. 53. How did the machine work with the "spreader" on it? was the spreader successful in preventing the heating of the saw?

A. *It was not;* the flanges got hot.

The actual state of the art was therefore as follows at the date of Myers' & Eunson's invention:

The upright saw was in use for resawing, but was too slow from the nature of the sawing mechanism.

The veneer saws were in use for log or block sawing, and circular saws were in use for bench sawing, but were too slow, from the nature or absence of the feeding mechanism; either the sliding carriage or hand power being used.

The veneer saw or stiffened circular saw was desirable for its fine edge and narrow "kerf."

The roller feed of the upright saw was desirable for its perpetual and rapid motion.

The principal point to be attained for the improvement of sawing machinery, for the purpose of resawing, was the invention of some means to render practical the combination of the large, fine-edged and stiffened saw, with the continuously acting roller feed. The difficulty which stood in the way, was the great force with which the pieces of stuff, having the broad surface, which boards have, of the width used in general re-sawing, pressed upon *each* of the sides of the saw. Unless this friction was removed the saw became heated and useless.

The Pearson Crosby patent of April 8, 1851, almost coeval with Myers & Eunson's invention, was, as we have seen, an *abortive* attempt to obviate this difficulty, in the use of a "spreeder" in the rear of the saw. It contains, however, a most accurate statement of the state of the art at the the date of Myers & Eunson's invention. That patent says (p. 83):

"The use of the circular saw, which presents, in "some respects, important advantages over the "reciprocating saw, *has not been heretofore suc-*

"*cessfully employed to re-sawing or slitting* "*planks and other lumber*, except very narrow "lumber, for the reason, that when such saw is "made of the requisite diameter it will 'buckle,' "and to prevent this it must be so thick as to be "wasteful of the lumber and of the power to drive "it. This difficulty has been overcome, for the "purpose of sawing veneers, by making the saw a "convex form on that face of it over which the "veneer passes as it is cut from the log. *But this* "*method cannot be used for what is called re-* "*sawing or slitting planks or lumber*, for the "reason, that from the thickness of the two parts, "they are too stiff and rigid to pass over the thick "part of the saw when made all on one face, and "even if the additional thickness were made equal "on both faces, the *binding on the saw plate* would "be so great as to present a serious resistance to "its rotation."

In order to overcome these difficulties, Crosby *proposed* to use a "swedged" saw, and relieve it by a spreader *behind* the saw. This, as we have seen, was found unsuccessful.

The necessities of the situation are well stated by Mr. Treadwell, the complainant's expert. He says (p. 10, q. 17):

"It is desirable in a re-sawing machine that the 'kerf,' or por- "tion of the wood removed by the saw, should be as narrow as "possible, in order to get the greatest number of thin boards out "of a thick board, and therefore the kind of a saw known as a "veneer saw is the only practicable or suitable saw for that pur- "pose. . . .

"The kind of saw known as the veneer saw is generally from "four to seven feet in diameter, and the plates being thin, the "wood fed to them to be cut has to be secured and fed by de- "vices which will prevent the wood from 'chattering' and spoil- "ing the cut. . . .

"Such an operation" (that of re-sawing) "requires consider- "able accuracy, though not so great accuracy as possessed by "the veneer machine" (*i. e.* with the carriage feed), "and to "make it practically useful, must be performed with a rapidity "not attainable by the veneer machine."

At this point in the state of the art, then, stands the Myers & Eunson invention, which disposed of all the difficulties which had been previously encountered.

Myers & Eunson adopted the circular veneer saw, with its thin saw-plates, strengthened by a central flange; and in order to relieve it from the strain and friction of the sawed stuff, they combined with it *two* deflecting plates, one on each side of the saw.

This combination of deflecting plates with the saw relieved *each* side from the binding force of the board. It was this combination that *rendered possible* the use of the saw with the continuous acting roller feed. This combination was, therefore, the direct and only means by which the capacity of re-sawing machinery has been raised so as to cut from 12 to 20,000 feet per day, instead of three or 4,000 feet, as was done by the older mechanisms. Myers & Eunson have described their combination as also combined with the roller feed which they introduced into it.

They were the first to introduce and make practical the roller feed with a circular saw, and their first claim (as modified by the disclaimer filed) is for those devices which rendered the use of their circular saw with the roller feed possible. It stands in the following words:

"What we claim as new, and desire to secure by "letters patent is—

"1st. The employment or use of the deflecting "plates E E, both placed at the sides of the saw as "herein shown, for the purpose of preventing the "sawed stuff from bearing against the sides of the "saw, and (for) expanding the saw kerf, and also

"for the purpose of allowing a thin veneer saw, to "be stiffened by plates D, one or two as desired."

The scope and merit of this claim are obvious, though the wording is inartificial.

It claims as the invention of the patentees the introduction into a sawing machine of two deflecting plates, one placed on each side of the saw for the purposes designated—to relieve the saw from friction, to open the kerf, and thereby permit the use of a stiffened saw.

In point of merit the claim is to be given the consideration and beneficial effect of a claim for the first practical combination of the saw and roller feed.

In one point the patentees, or their solicitors, erred in drawing the specification and claim of the original patent. Supposing that they were the first to use either one or two deflecting plates with the saw, their first claim included both combinations. Apparently they originally supposed that stuff could be practically resawn using only one deflector, but experience soon proved the contrary.

Mr. Eunson says (p. 33, q. 59), "I made experiments with that machine at an early date of its existence, but I found I could not work successfully with one."

(To the same effect, see Mr. Peek's evidence, p. 21, q. 19–21, and Wm. Myer's evidence, p. 25, q. 4–9.)

This combination, though useless, as it turned out, in connection with the roller feed, would have been operative and advantageous with the carriage feed. In this combination they were,

however, unknown to them, anticipated by the Andrews & Sproat patent of 1839. The patentees accordingly disclaimed it. Their first clause of claim was separable into two distinct claims, one for the combination of one deflecting plate with the saw, and the other the combination of both deflecting plates with the saw; the second of said combinations being "a material and substantial part of the thing patented," (in fact *the most* material and substantial part) and being "definitely distinguishable from the parts claimed without right." The patentees could, notwithstanding their error in claiming too much, maintain their suit for that "which is *bona fide* their own" (Act of July 8th, 1870, section 60), and could disclaim, as they have done, the part of which they have now discovered they were not the original and first inventors.

Act of July 8th, 1870, section 54.
Tuck *vs.* Bramhill, 3 Fisher, 400.
Aiken *vs.* Dolan, 3 Fisher, 199.
Taylor *vs.* Archer, 8 Blatch. 315.
Leed *vs.* Higgins, 8 Els. & Bl. 755, 771.

Judge Blatchford, delivering the opinion of the Court below, has properly disposed of this question, saying (p. 102, f. 191), "The disclaimer of the "use of only one deflecting plate with the saw, and "the limitation thereby of the first claim to the use "of two deflecting plates with the saw was proper, "and the disclaimer was in proper form."

And in regard to the claim made by the defendants, that in view of the Andrews & Sproat patent of 1839, having a "reliever," or one deflector, the use of two was a mere obvious duplica-

tion, and not patentable. Judge Blatchford, adverting to the fact that the use of two deflectors produced a new result, and introduced the circular saw into a new and important department of sawing business, said (p. 996, q. 180):

"*The plaintiff's machine is one of great utility* "It is not designed for the sawing of *logs*, or of "boards from *logs*, but designed to saw *lumber*— "that is, boards and planks in the state in which "they are found in the market—into thinner "lengths. It is generally called a re-sawing ma- "chine, which indicates the subjecting again to "the process of sawing, lumber which has been "created by sawing (p. 102 and 191–2).

* * * * *

"There is nothing in the fact that one deflecting "plate is described in the extract from Holtzapffel "and in the Andrews and Sproat patent, which "affects the novelty of the invention of the use of "two deflecting plates in the plaintiff's machine. "*The case is not one of mere duplication.* In view "of the fact, that in cutting from a block, as in the "Andrews and Sproat patent, and from a log, as "in the machine described in the extract from "Holtzapffel, but one deflector is required, or *could* "*be used*, and that the *plaintiff's substituted* for "the carriage feed, before used with one deflector, "*a roller feed*, in the use of which, in a machine "for re-sawing boards, the saw is exposed to fric- "tion on *both sides of it*, so as to require a de- "flection of the board on *both* sides of the saw *at* "*the same time*, the introduction of deflecting "plates on both sides of the saw, *so as to render* "*practical the re-sawing of boards by a circular* "*saw with a roller feed, must be regarded as a*

"*substantial invention, notwithstanding one de-*
"*flecting plate had been used in a machine for*
"*sawing from the log or block without a roller*
"*feed.* The Andrews and Sproat patent, contain-
"ing the one deflecting plate, was granted in 1839.
"Yet Crosby, in his patent of 1851, introducing
"devices to relieve the saw on both sides at once,
"did not hit on the idea of putting in two deflect-
"ing plates. *The use of them was not obvious in*
"*such a machine as the plaintiff's*"

The combination of the deflecting plates with the saw was, however, not the only feature introduced by Myers and Eunson into re-sawing machinery.

The second feature of their invention consists in the use, with the saw and the perpetual roller feed, of elastic clamps, independent in their action of the roller feed itself.

In considering the purpose of this claim, there must be remembered, first, the great speed of a circular saw, and second, the speed and character of the roller feed.

In order to resist the thrust of the saw (of the power which this one possesses), each board should be held firmly and steadily, without vibration, during the process of cutting, by some device, independent of the action, vibration and position of the feeding rollers.

Now, boards to be re-sawn come to the market rough cut and slightly varying in thickness, not only from end to end, but also from each other. In consequence of these variations it is evident that when a

thin board is followed by one somewhat thicker, the moment the thick board spreads apart the feed, unless the thinner one in front is held by some other device, it would be immediately "knocked down" and split by the saw.

The method in which Myers & Eunson obviated this difficulty was by combining with the feeding rollers, an elastic clamping mechanism projecting in front of the feeding rollers, and whose elasticity was to some extent independent of the feeding rollers, so that the grasp of these clamps upon the board would not be destroyed by the spreading apart of the feeding rollers.

By means of this combination every board is firmly held, and presented to the saw independently of the position of the roller feed.

If a thick board succeeded a thin one, the clamp held the thin one, though the roller feed was spread apart by the thicker board.

If a thin board succeeded a thick one, the roller feed grasped and propelled the thin one, although the clamps were spread by holding the thicker board. This contrivance, therefore, enables each board to be firmly held and presented to the saw, while the roller feed firmly grasped, held and fed a succession of boards of varying thickness, and inasmuch as boards which are required to be re-sawn always vary in thickness, the addition of the independent elastic clamping mechanism enabled the saw to cut a perpetual succession of boards of varying thickness without injury to the stuff, each board being presented to the saw, steadily and without vibration. In any class of boards, especially those for mirror or picture frames, this feature was, of course, important. The advantages of the

use of this independent clamping mechanism with the roller feed is not disputed by the defendants. It is manifest that the degree of independent elasticity of the clamp may be varied without affecting the general character of the device, but only its *relative* efficiency. The *greater* the amount of independent elasticity in the clamp, the *greater* will be the range of *difference* in thickness of boards which the machine will have the capacity of cutting, without adjustment.

The third claim of the complainants' patent was merely for a combination of knives for cutting off the stubbs of boards, and is not in controversy here, and is of no importance.

The fourth claim was for a combination of the saw, roller, bed and clamps under such arrangement that the rounded or flange side of the saw is made the "line" side, or side on which the thickness of the stuff sawn of is gauged.

This claim is for a subordinate combination to that recited in the second claim, and as the second claim, is, as we shall see, infringed as a whole, the fourth claim becomes of minor importance.

These, then, are the claims of the complainants' patent, and the recital of them, together with a perusal of the specification and drawings and an inspection of the model satisfies the mind that the invention of the patents was a great and important one in the state of the art. Though the combinations were for devices previously known separately for other purposes, the consequences

were of the most beneficial character, and the learned Judge in the Court below could well say, as he did (p. 99.)

"THE PLAINTIFF'S MACHINE IS ONE OF GREAT "UTILITY."

I.—The Infringement by the Defendants.

The infringement of the complaintans' patent by the defendants' machine can hardly now be seriously contested.

The first, second and fourth claims (the only important ones) are clearly appropriated by the defendants.

The infringement was contested in the Court below with a variety of ingenious argument, but it is manifest upon inspection, and is so conclusively settled by the reasoning of the Court below, that it seems only necessary to quote Judge Blatchford's opinion as follows: (p. 101.)

"The machine used by the defendants Dunbar "and Hopper has the combination of two deflect- "ing plates with a circular veneer saw, which is "covered by the first claim of the plaintiffs' "patent.

"That machine, which I call the Dunbar ma- "chine, has four feed rollers, two on each side of "the machine. Two of the four are opposite to "each other, and nearer to the saw than the other "two are, which latter two are also opposite to "each other. It also has two clamping instruments, "which are located, with reference to the saw, sub- "stantially in the same place as the two clamping "instruments described and shown in the plain- "tiff's patent. One of those clamping instruments "is rigidly attached to the standard which "holds one of the two rollers nearest the saw, and "the other of said instruments is rigidly at-

"tached to the standard which holds the other "one of the two rollers nearest the saw. "Therefore, neither one of such clamping instru- "ments can have any lateral elastic movement in- "dependent of the roller held by the standard to "which it is attached. One, however, of such "clamping instruments has a lateral elastic move- "ment independent of the feed roller on the same "side which is farthest from the saw; and the re- "sult of the arrangement is, that inequalities in a "board that is being sawed affect independently the "lateral elastic action between the clamping instru- "ments and the lateral elastic action between the two "feed rollers that are farthest from the saw, and "two boards of different thicknesses may follow "each other through the machine, and one of them "be firmly held by the clamp, while the other is "firmly held by the two feed rollers that are far- "thest from the saw. This is the substance and "essence of the invention covered by the second "claim of the plaintiffs' patent.

"It is objected, that the plaintiffs' clamping in- "struments have an elasticity independent of the "roller beds to which they are attached; that the "clamping instruments in the Dunbar machine "have no elasticity independent of the roller beds "to which they are attached, one of them having an "elasticity which is independent only of the roller "beds to which it is not attached; that the second "claim of the plaintiffs' patent claims expressly "claims only clamping instruments which have a "lateral elastic movement independent of the rol- "ler beds to which such clamping instruments are "attached; and that, therefore, the Dunbar ma- "chine is, in respect to its clamping instruments,

"not an infringement of the second claim of the "plaintiffs' patent. But this is too technical a "view, and sacrifices substance to shadow. Taking "the whole specification, and the statement of the "invention, and the description, and the second "claim, and reading them together, it is manifest "that the arrangement in the Dunbar machine em- "bodies the real invention covered by such second "claim, and that there is no violence to the lan- "guage of that claim in so construing it as to hold "it to cover an arrangement in which one of the "clamping instruments has a lateral elastic move- "ment independent of feed rollers with which it is "combined, or in connection with which it is used. "The change made in the Dunbar machine is not "a substantial change, but is one that would be "made by a mechanic seeking to vary form with- "out varying substance, and hoping, while using "the invention, to avoid the charge of infringe- "ment.

"It is also objected, that each of the plaintiffs "clamping instruments has a swinging motion, on a "vertical axis, so that they can hold at the same "time between themselves two boards of different "thickness, without reference to any independent "elastic action of the roller beds; and that neither "of the clamping instruments in the Dunbar ma- "chine has any such swinging motion on a vertical "axis. This feature exists in the plaintiff's clamp- "ing instruments, and is a useful one, and is absent "from the Dunbar machine, but it is not a feature "that enters into the second claim of the patent, "nor is it a feature that has anything to do with the "question of a lateral elactic action in the clamp- "ing instruments independent of a lateral elastic "action in some or all of the feeding instruments.

"Nor does the absence from the Dunbar machine "of provision for making the clamping instruments "on both sides elastic independently of the elastic "action of the feed rollers farthest from the saw, "make it any the less an infringement of the sec- "ond claim of the patent. The Dunbar machine "also infringes the fourth claim of the plaintiff's "patents."

This infringement was persistently carried on for many years.

The bill alleges full notice of the complainants' rights, and this is not denied in the answer, except by denying the rights.

The defendants were members of an association of infringers, as is apparent from the character of the opinion delivered in the Court below, when a number of suits were grouped and decided together.

It may not be amiss to note that the Circuit Court, (Judge Woodruff presiding), imposed punitive damages in an action of law upon some of the other defendants, whose cases were decided in the Court below at the same time with this.

Peek *vs.* Frame, 8 Blatch., 194.

III.—The validity of the Complainant's Patent.

This is the third point to be considered. It will be treated with reference to the several claims.

1. The documentary defences to the first claim are two in number, but in reality one in nature.

They consist of the published description in Holtzapffel's mechanical work (p. 70), and the patent of Andrews & Sproat, of December 31, 1839 (p. 85).

Both of these publications show a single guide or deflector only, and applied to one side of the saw, not to both.

The guide described in Holtzapffel's work is manifestly insufficient to serve the purpose of either of the Myers & Emerson deflecting plates. (Treadwell's Ev., p. 13, f. 25) At all events it amounts to nothing more than a deflector of an inferior kind to that shown in the Andrews & Sproat patent. The consideration of the Andrews & Sproat machine will, therefore, cover everything that can be said in favor of Holtzapffel's description.

The Andrews & Sproat machine is described as one for cutting boards, shingles, &c., "from the block."

It is perfectly apparent, that in cutting slabs "from a block" [or a log, as in Holtzapffel], that only one deflector is required, and only one deflector could possibly be used.

The block or log is unyielding, and hence could not be deflected without causing the saw to run into the wood.

The block or log must be carried past the flat side of the saw in a fixed line, or pieces could not be cut off of an even thickness.

It would be impossible, under these circumstances, to use a deflector on the flat side, for if a fixed guide for the block or log was used on that side, the log or block would be jammed between the guide and deflector; and if no fixed guide was used, the inelastic block being turned from a straight line, would cause the saw to run into the wood on the other side, and make an uneven cut.

Moreover, it is evident, that with the Andrews &

Sproat machine a traveling carriage, to which the block was screwed, must be used, if any feed was used at all; for if the block was not fastened to any carriage, the deflection of the piece on the rounded side of the saw would pull the rest of the block against the flat side, with increased friction. In that case the use of a single deflector would increase, not diminish the friction.

Mr. Francis C. Treadwell, the complainant's expert, in speaking of the Andrews & Sproat machine, and contrasting it with that of Myers and Eunson, says (p. 18):

"The machine described in said Andrews & Sproat patent is "for sawing boards, shingles and other like articles from a block, "and is adapted to that purpose; *i. e.*, the saw-frame and saw des "cribed in the patent may be set up alongside of the ordinary sliding "bed-frame, to which blocks are secured for sawing, and in such "connection the saw will be relieved from the friction of the sur- "faces of the stuff by reason of the sliding-bed to which the block "is secured, holding that side of the surface of the saw kerf against "the action of the deflector upon the other side of the saw, which "protects its side of the saw from the pressure of the surface of the "saw kerf on that side of the saw; or, in other words, in the use of "the Andrews & Sproat machine the deflector protects the saw "from the friction of the board upon one side, and the sliding-bed "frame which holds the block prevents the block surface from "being drawn against the saw by the wedge-like action of the de- "flector. This is a substantially different operation from that des- "cribed in the Myers and Eunson patent, as modified by the dis- "claimer. In that machine the saw is protected from the pres- "sure of the boards being re-sawn by a deflector upon each side "of the saw which holds open the saw kerf sufficiently to pre- "vent its surface bearing upon the sides of the saw, thus sub- "stituting a combination of two deflectors for a deflector on one "side of the saw, and a block-holding mechanism on the other. "If the Andrews and Sproat machine were attempted to be used "with the deflector as described, and without a block-holding "mechanism, the deflector would cause increased pressure and "friction upon the saw, and therefore would not accomplish the "purpose stated in the patent. It could not be used with feed- "rollers to feed-boards for re-sawing as in the Myers & Eunson "machine. On the other hand, if another deflector were applied "to the Andrews and Sproat saw, it could not be used to cut "boards or shingles from a block because the block would not "yield or spring so as to pass the deflector on each side of the "saw."

Mr. Renwick, the defendant's expert, is reluctantly forced to an admission that the use of a single deflector would increase friction instead of removing it (p. 55, x-q. 10).

From the above statement, the differences between the results, accomplished by the combination of a saw with two deflectors and the use of one deflector alone, are obvious.

The Myers & Eunson machine cuts "*boards*" not "logs," or "blocks."

It uses a roller feed, not a carriage feed. Inasmuch, therefore, as a saw when supplied with boards from a roller feed was exposed to friction on both sides, the patentees had to invent some device to keep the board from each side at the same time. The addition of another deflecting plate upon the opposite side seems now a simple contrivance, and yet it is apparent that it was not obvious, from the fact, that in the older machines the carriage-feed was used which forbade the use of a deflector except on one side; and that it was not obvious is further shown by the fact, that in 1851, Mr. Pearson Crosby, who was one of the most experienced men in the sawing business, and the inventor of the upright saw, was endeavoring to reach the very result which Myers & Eunson patent attained, and yet, though the Andrews & Sproat machine had then been before the world for twelve years, it never occurred to him to use a deflecting plate on each side of the saw, so as to render the use of a circular saw with roller feed practicable.

Mr. Crosby narrates in the preamble of his patent the difficulties which had attended the attempts to introduce the circular saw into resawing, and the fact that those difficulties existed and were acknowledged by a man of such experience shows that the remedy for them was not an obvious one, however simple it may now appear.

Crosby attempted to secure the desired result by the use of a spreader *in the rear* of his saw. This, as we have already seen, was a failure, and did not accomplish the result.

Myers & Eunson did accomplish the desired result by combining with the saw two deflecting plates, one on each side of the saw.

The device is acknowledged to be effective for the purpose; more than this, it was productive of enormous practical advantages by rendering the use of the roller feed possible with the circular saw, a combination which increased five fold the capacity of machinery to resaw lumber.

Mr. Treadwell, the complainant's expert, says on this subject, (p. 18, fol. 35):

"In my opinion, it is not a mere duplication requiring no in-
"vention. The mode of operation of the combination of two de-
"flectors with the saw, one being placed on each side of the saw,
"is substantially different from the mode of operation of a single
"deflector in the operation of sawing by the Andrews & Sproat
"patent machine. It was not obvious that the placing of a second
"deflector would produce a useful result in the Andrews & Sproat
"machine; but on the contrary it must have been obvious to any
"one who had thought of it that it would defeat the object of that
"machine which was to saw shingles from blocks; and, therefore,
"if a person should set about making such a duplication in the
"Andrews & Sproat machine, he would have shown that he did not
"understand the object of that machine, and would have been
"obliged to discard his "mere duplications." But when by the
"addition or duplication of a previously known device in a combi-
"nation it adapts that combination for another useful purpose
"which it would not before subserve, and this addition or duplica-
"tion is made in view of that new and useful purpose, and the new
"combination placed so as to operate in conjunction with devices
"essential for carrying out that new and useful purpose, the whole
"forming a machine capable of performing a different kind of
"work from that which the machine performed before; I think
"there is that sort of contrivance of means to accomplish ends
"which is the substance of invention, [p. 18, f. 35.]

Slight modifications of pre-existing machnery, although apparently simple, yet if productive of

important results will always be upheld as patentable.

Forbush *v.* Cook, 2 Fisher, 668.
Brett *v.* Telegraph Co. 70 E. C. L. R. 882.

In Roberts *v.* Dickey (1 Off. Gaz. 4), Mr. Justice Strong said :

"It may be inferred that sufficient invention was exercised in producing a given change to sustain a patent for it, if its utility is demonstrated by the results."

In Parker *v.* Hulme (1 Fisher, p. 49), Judge Kane said :

"Duplication of parts producing a new and useful result, as it was here produced, may be patentable. It is often the material part of a discovery, because it may be that which renders useful what was previously useless. In the case of the proper machine before this Court, it was held, that a number of rollers, acting in pairs for a particular purpose, might be patented, though a single pair could not have been."

The Andrews & Sproat machine remained before the world for nearly 15 years prior to the patenting of Myers & Eunson invention, without that being suggested which is now asserted to be so obvious in view of their patent; and this, too, though other experiments were made with a view to secure the object that Myers & Eunson obtained. This state of facts is conclusive in favor of the patentability of the plaintiff's invention.

Poillon *v.* Schmidt, 3 Fisher, 481.

At the very end of the defendants' case they proposed a new theory, to wit, that the use of two deflectors was of no use, that one deflector was just as good as two in resawing. The foundation of

this manifestly erroneous proposition was disclosed by the cross-examination of the witnesses who were adduced to support it.

Those witnesses were two in number, Erastus Roff, the maker of the defendants' machine, and Andrew Phillips, the defendants' sawyer. These men testified in general terms that they had discovered that they could use the saw as well with one deflector as with two.

On cross-examination the both admitted, however, that in order to do this they gave the teeth of the saw a greater set [or projection] than usual on the side without the deflector. This caused the saw of course to cut a larger kerf which produced a wastage of stuff, but relieved to some extent the friction. But even then that was not sufficient. So they adjusted the feed of the saw, so as to feed the stuff at such an angle to the saw that the portion on the side without the deflector should by the line of feed be carried in the same direction that it would be given if the deflector was present. By this means they threw the whole friction upon the side of the saw which had the deflector. [See Roff's evidence, p. 63, q. 11, 12, 15, 21, 22 and Phillip's evidence, p. 65, q. 14, 17, 18, 37 and 39.] Even then the work was manifestly very imperfectly done. [See p. 68, q. 43.]

It is perfectly obvious that feeding lumber cross-ways to the saw must be very detrimental to the machine. This is recognized in the patent of Peason Crosby [p. 77,] in which he says: "In re-"sawing lumber, and particularly in resawing thin "boards, it is of the utmost importance that the "boards be presented and moved to the cutting ac-"tion in the plane of the saw; for if there be any

"deviation from this the sawing becomes imper-
"fect; the saw is strained and bent, and the line of
"cut is liable to be carried out of the required
"track, so that neither of the boards produced
"will be of an equal thickness."

It is to be remarked that Mr. Renwick, the accomplished expert for the defendants, though examined on other points, is not called to testify as to the operation of the machine with one deflector.

Whether the work was well done or not is, however, of little consequence. The fact remains that the machine cannot be run without two deflecting plates *except by having resort to other mechanical contrivances to supply the place of one of them.*

The ingenious devices which had to be resorted to to displace one of the deflecting plates compels the conclusion that there was equal, if not greater, ingenuity displayed, in originally placing it where it was.

The only other defence in the first claim is the alleged use of a saw by Daniel Doncaster at Albany.

This saw was a solid plate saw, with two little deflectors one on each side.

Doncaster's affidavit, Exhibit 7, [p. 93] states that this saw was run "between 1851 and 1853."

This evidently refers to the time when it *commenced* running; for he says himself that it is running yet.

In his oral testimony, however, without any better means of fixing his recollection, than at the time of making the affidavit, Exhibit No. 7, he says that he went to work with Mr. John Gibson, of Albany, in the Fall of 1850, [p. 45, q. 14] and *commenced* building the machine "about a year afterwards" [p. 44, q. 10]. This would bring the commencement of the building of the machine *about* the Fall of 1851. Doncaster then goes on to say that the machine *may have been* six months in building [p. 48, q. 75], and six months in experimenting with before the "clips" or small deflectors were *attempted* to be used [p. 47, q. 52.] Prior to that time, Doncaster tried to use a spreader in the rear of the saw [q. 53]. Sometime elapsed before the clips worked practically, [q. 48, q. 59, &c].

Even on the most favorable construction of this witness' evidence these "clips" could not have been put upon the machine so as to work until the Fall of 1852, and there is no certainty that they were used at nearly so early a date. The whole testimony of the witness is full of uncertainties as to times and dates. He has nothing definite by which to fix his memory.

There is a strong probability, however, that the whole machine was not built until some years later than Doncaster states. As already seen, the saw in question was built for John Gibson by Doncaster, and according to Doncaster's admission [p. 45, q. 16, 17,] was built under the patent of Pearson Crosby for the circular saw.

Gibson never bought the right to the Pearson Crosby patent until April, 1856 [complainant's Ex-

hibit 13, p. 33], and a few days later said Gibson also bought a right under the Myers and Eunson patent for the same place [see complainant's Exhibit 14, p. 33].

In view of the uncertainty of the witnesses' recollection, the Court will not presume that the saw, set up to defeat this patent, was built before the parties building it had a right to do so, especially in view of the fact that the owner of the saw purchased an interest under the Myers and Eunson patent.

But even admitting Doncaster's testimony to be in all respects true, yet the saw he built for Gibson did not anticipate Myers and Eunson's invention. They are shown to have conceived every substantial feature of their machine in February, 1851, [p. 26, q. 7 & 8]; they made drawings illustrating all its parts in March, 1851, [p. 27, q. 8] from which same drawings the Patent Office model was made [q. 9].

They made working drawings for a full sized machine in January, 1852, and the patterns for that machine which is now in operation were made in the year 1852, the machine constructed and put in operation [q. 8,] immediately afterwards.

The conception and practical production of Myers & Eunson invention was made, therefore, anterior to the Doncaster saw.

The Circuit Court properly said in considering this defence:

"The prior use by Doncaster of the two deflect-
"ing plates with the saw is not established. The
"evidence shows that Myers & Eunson made the
"invention before it was made by Doncaster or any
"one connected with him."

2. The second claim is sought to be anticipated by the Pearson Crosby patent of April 8th, 1851, and the English patent, defendant's Exhibit No. 2. Both of these patents are precisely alike. Neither of them shows any clamping mechanism, having an elastic movement independent of the feed roller beds, which as we have seen is the substance of the patents second claim. Each shows a clamping roller, permanently fixed to the feeding roller and bed, but having a lateral elastic movement, independent of a mere pressure roller in the rear.

There is no combination shown in either of these patents by which one board could be clamped and presented to the saw while another board of a different thickness in its rear could be fed, by feeding rollers having an elasticity independent of the clamp.

The Court below properly disposed of these patents and of the Crosby patent of 1841, which was put in evidence, but not much discussed, in the following words:

"The English patent of Belford, and the Crosby
"patent of 1851, are the same. Neither of them
"contains any clamping instrument which has a
"lateral elastic movement independent of any feed
"roller bed in the machine.

"The machine which they described would not allow one board to be held by a clamp "while a board of greater or less thickness was be- "ing held and fed by feed rollers.

"There is nothing in the Crosby patent of 1841 "to affect the novelty of the plaintiff's patent. No "evidence was given as to any other prior use or "knowledge that is set up in any of the answers. "Nor was the novelty of the fourth claim of the "plaintiff's patent attacked."

There is, therefore, no valid defence to the plaintiff's patent, and it was properly decreed by the Court to be valid, and a decree properly rendered for an injunction and account of profits.

It remains only to discuss the rule of recovery against the defendant.

IV. The Rule of Recovery against the Defendants.

The complainants having a valid patent, and the same having been infringed by the defendants, and a decree having been passed that the defendants account for and pay over to the complainants the gains and profits they had realized by reason of the infringement, the next question that was determined was the amount of such gains and profits.

The defendants, as we have seen, were infringing every material claim of the patent, and were using a machine which embodied the whole of the plaintiff's invention, only differing from it in point of inferiority.

The defendants were using the combination of the circular veneer saw and roller feed, which the complainants, by their invention, had for the first time, rendered practical for resawing, and they were using the complainants' devices, which alone rendered the combination possible.

The machine consisted of the complainants' combination of devices, and nothing else.

Now, the rule is entirely settled that on an accounting of profits made by infringing a patented machine the complainant shall recover the profits due to the use of his invention.

When the invention is of an improvement upon a machine, the patentee is entitled to the profits realized by *reason of the improvement*, and while on the one hand, it is laid down that in case of a patent for an improvement on a machine, only the profits due to an improvement can be recovered; it is equally well settled that when the patentees, by their invention and improvement, introduce and render practical a new organization they are entitled to recover all the profits derived by the defendants from the use of that organization which are due to the patentee's invention.

Am. Nic. Pav. Co. *v.* City of Elizabeth,
6 Off. Gaz. 766.
Mowry *v.* Whitney, 14 Wall. 620.
Littlefield *v.* Perry, 21 Wall. 205.

This being a suit in equity, commenced prior to the Act of 1870, and profits, as such, and not dam-

ages being recoverable, the accounting "is based "upon the idea that the infringer shall be convert- "ed into a trustee, as to those profits for the owner "of the patent which he infringes."

(Burdell *v.* Denning, U. S. Supreme Court, May 8th, 1876.)

And "the controlling principle of the accounting "is that the infringer shall not profit by his "wrong."

(Rubber Co., Goodyear, 9 Wall. 408.)

The master has filed a most exhaustive and able report (p. 162-167.) This report was made out from the books of the defendants which were then submitted to him, from the oral and written evidence adduced before him, and, as he states in his report, after having personally "visited the establishment of the defendants, and witnessed the operation of their resawing machine." This personal inspection was made at the request of counsel for both parties so that the master might be more competent to judge of disputed questions of fact and of the credibility of the witnesses.

The master reported as matters of fact, as was proved before him, and as had been found as a fact by the Court also.

1st. That the defendant's infringing machine, was operated by them from July, 1863, to June, 1871, and "*was practically run because of and by means "of the complainant's invention.*" and also,

2d. That the amount of resawing done by the infringement machine in that period was 7,150,143 feet.

3d. That the gross receipts realized from such resawing was $\$26,237\frac{94}{100}$.

4th. That the gross expenses for such resawing during that period were $17,117.

5th. That the profit derived by the defendants from the infringement were $9,120$\frac{94}{100}$.

The defendants requested the master to find that the complainants were not entitled to any profit because, subsequent to the period of the accounting, they ascertained a means of running the saw by merely leaving off one deflecting plate and both clamps, and that the saw ran equally well under those conditions.

The master declined to make this finding (Excep. 12, p. 170) and found that during the period of their accounting, there was no such machine known, or discovered, or open to the public, or to the defendants, or used by them. The master refused to allow interest on the profits realized from year to year, and credited the defendants with certain sums as expenses under objection by the complainants.

To this report the defendants filed fourteen exceptions, and the complainants five.

The exceptions of the defendants will be first considered.

1. The *first exception* which related to the *name* of the defendants business, whether "resawing" or "box-making," and whether the resawing was done for themselves or others is immaterial.

The question was, how much profits the defendants realized, not the name of their business. The master made no finding on the subject.

2. The *second exception* relates to the finding of the master that the defendant's machine was only

practically used, because of the complainant's invention.

This finding of the master was in effect what the Court had already decided, that the combination of the two deflecting plates with the circular veneer saw was the great advance in the art of sawing, which introduced and rendered practical the combination of the saw with the continuous roller feed.

In support of this finding it need only be mentioned that

(*a.*) The Court had already found this fact, and made it the basis of its decision. Judge Blatchford had said:—"The plaintiffs substituted for the carriage feed, before used with "one deflector, a roller feed, in the use of "which, in a machine for resawing boards, "the saw is exposed o friction on both sides "of it, so as to require a deflection of the "board on both sides of the saw at the same "time, *the introduction of deflecting plates on "both sides of the saw, so as to render practical the resawing of boards by a circular "saw with a roller feed*, must be regarded as a "substantial invention, notwithstanding one "deflecting plate had been used in a machine "for sawing from the log or block without a "roller feed.

(*b.*) The master had personally witnessed the operation of the defendant's machine, and based his conclusion on the evidence of his own eye-sight. (See report.)

(*c.*) The evidence adduced was perfectly conclusive on the point.

Mr. Eben Peek is asked (p. 21, q. 19): "Would it be possible practically with a "roller feed to use a circular saw, such as the "Myers & Eunson saw, without a deflecting "plate on each side of the saw; and if not, "why not?

"A. *It would not.*"

The witness then proceeds to give his reasons, and the results of actual experiments.

Mr. Wm. Myers is asked, (p. 25, q. 5): "Do you consider it practical to resaw with "the Myers & Eunson Machine, with one of "the deflectors taken off?

"A. *No, sir;* you can't suit the customers "with the work it does."

Mr. R. G. Eunson says, (p. 33, q. 58): "I never have used the Myers & Eunson "Machine with other than *two* deflecting "plates (q. 59); I made experiments with "that machine at an early date of its exist-"ence, but I found I could not work success-"fully with *one.*"

He and other witnesses are further asked with reference to the question whether prior to June, 1871, (the date of the injunction against the defendants), there was any practicable mode known of operating a veneer or segment saw, such as the complainants or defendants, without two deflectors. Mr. Eunson is asked, (p. 115).

"Q. Prior to June, 1871, was there any "practicable mode of running a segment re-"sawing machine, without two deflecting "plates?

"A. Not to my knowledge."

His knowledge and experience are shown to have been very extensive (p. 115).

Mr. Peek, also a man of large experience, is asked, (p. 131): "Q. Prior to June, 1871, "and since 1859, was there any known means "of running a segment circular saw, practic- "ally for resawing without two deflecting "plates?

"A. Not to my knowledge."

Mr. Roff, *the maker of the defendants' machine*, and a builder of resawing machinery for ten years (p. 136), says: "Prior to "June, 1871, I never knew of a circular seg- "ment saw which could be run without two "deflecting plates."

The defendant did not contradict any of these witnesses. Nor did they offer to show that during the period covered by the accounting, there was any known means of running such a saw without the two deflecting plates. They have only attempted to show that by making certain *changes* in the saw *since that time* they are enabled to dispense with one deflecting plate by *using other devices* to accomplish, *in a measure*, the same result.

These we have already mentioned and shall discuss later.

The second of exception of the defendants was therefore properly overruled.

3. The *third exception* is evidently based on a misapprehension.

The master estimated the profits only on the resawing done by the machine in question, and *not* in *all* resawing. (See report f. 303).

The finding of facts as to the amount done by the respective saws, in the defendants' establishment, was based on the evidence. A pure finding of fact, when the master had the witnesses personally before him, will not be disturbed.

4. The *fourth, fifth, sixth and seventh exceptions*, are 15 similar findings of pure fact. They need not be discussed.

5. The *eighth exception* is embraced in the second, and has been already discussed. It is also a mere question of fact.

6. The *ninth exception* is to a mere finding of fact.

7. The *tenth exception* is in regard to the finding relating to the contents of the defendants' books.

The finding was correct; the books are not produced here, or any extracts from them put in evidence.

8. The *eleventh exception* needs no discussion.

9. The *twelfth exception* is to the master's refusal to find that the defendants' saw ran equally well without clamps, and with *one* deflecting plate.

This was also a pure question of fact. The finding was doubtless based, not only on the evidence, but also on the personal inspection of the machine by the master.

The question was wholly immaterial, as it was not pretended that the defendants' machine was modified so as run in that manner until just as the period of the accounts closed.

10. The *thirteenth and fourteenth exceptions* were to matters of law on the facts found, and they can only be treated of by considering the

whole case, and the theory of the defendants with regard to it.

We have already shown that the complainants' invention was, in effect and merit, a claim for the combination of the circular veneer saw and roller feed, because they, for the first time, by combining with such saw two deflectors, placed at each side of the saw, rendered this combination practical and possible in resawing.

But if we treat the claim as one for an "improvement" still the result is the same.

We recognize to the full, the rule, that when the patent is for an improvement, the profits recoverable are only such as are due to the improvement, but we must recognize the corollary of that rule, that all profits shown to be due to that improvement, though they may include all the profits the defendants have made, are justly to be awarded to the patentees.

Now, the complainants' machine was decided by the Court, and the proofs, as we have seen, were ample to that effect, to be one of "great utility;" it, for *the first time*, "rendered practical the resawing of "boards by a circular saw with a roller feed."

It is also shown that the defendants' machine is one used by them "in the business of resawing "boards," "consisting of a circular saw with a "roller feed."

It does not contain a single substantial feature which is not embodied in complainants' machine and which was not by them, for the *first* time, and *during the whole period* of the accounting rendered practical solely by the reason of the "intro-

duction of deflecting plates on each side of the saw."

In connection with this state of facts we now consider the law governing the computation of the profits of an infringer.

In McCormick *vs.* Seymour, 3 Blatchf., 225, at the last trial, Judge Nelson charged the jury: "If the case is one of an improvement on a machine, then he is entitled as a measure of damages, to all the advantage of the use of his patented improvement, excluding the profits of the manufacture, and excluding also the value, if any, of the use of the old machine. Now so far as respects the benefits and advantages that a patentee would derive from an improvement on a machine, you see at once that they would depend very much, if not altogether, upon the usefulness of the machine with that improvement, compared with its usefulness without that improvement. * * * * If the machine stripped of these improvements would be a useless article in the market, and if no person would buy it unless those improvements were annexed to it, then its value, so far as its utility is concerned, depends on those improvements; because they give it vitality and usefulness in the eyes of the business community.

This rule was affirmed by this Court, on appeal.

Seymour *vs.* McCormick, 19 How. 96.

So also in Whitney *vs.* Mowry, 4 Fisher, 145, Judge Swayne said: "But it would seem to be very clear that if a party invent a machine, or anything else that is perfectly valueless, having no salable commercial value, and which in every other respect is worthless because he cannot sell it;

and then use it in connection with that machine or structure, or article, whatever it may be, which gives it the entire market value, it would seem at first view that the amount to be recovered should be the entire amount of profit, because there is a proximate, inseparable connection between the old or useless article sold by means of the new invention, and which could not have been sold otherwise."

This rule is not understood to be attacked in the reversal of this case on other grounds in this Court.

(See also Carter *vs.* Baker, 4 Fisher, 404.)

In American Nicholson Pavement Company *vs.* City of Elizabeth, 6 Off. Gaz., 766, the Court said:

"We are then to inquire what is the character "of the invention. Is it a new machine or manu- "facture or composition of matter, *whose entire* "*value and usefulness result from the mechanism*, "*combination or constituents* which the genius of "the patentee has originated, arranged or pro- "duced, or is it a mere addition to or improvement "of an existing machine, manufacture or process, "rendering them *more* value or profitable, *but not* "*necessary to their use*, and which may be used "in a less profitable way without the addition or "improvement."

The Court then proceeds to hold, that in the first case the *whole* profit, and in the last only the additional profit is recoverable.

Now the master has found, as a fact, and the evidence is conclusive, that during the period which the accounting comes, the defendant's machine was practically run, "because of and by

means of the use of said invention" (p. 2) and that no means were known during such period of practically running the machine except by the use of the plaintiff's improvements.

(See evidence of Eunson, Peck and Roff, already quoted.)

It necessarily follows, therefore, that during such period (in the language of Judge Nelson,) "the machine, stripped of the patentee's improvements, would be a useless thing," and that they, during such period, "gave it vitality and usefulness in the eye of the business community," and in fact,

The rule therefore is, that the defendant shall be liable for the whole profits made by such improved machine, the machine without such improvements having been useless.

This is on the theory that the plaintiff's invention is to be treated only as an improvement.

But the defendants object to the application of this rule to their care for the following reasons:

a. The defendants object to the application of the rule above stated in this case, because they claim that "since June, 1871, it has been ascertained that the infringing machine can be run to *equal advantage* by merely leaving off one of the deflecting plates and both clamps of the machine," thereby, as they claim, converting their machine into an Andrews & Sproat machine, which they have, and always had, a right to use. They therefore claim that this case comes within the principles of Mowry *v.* Whitney, 14 Wall. 620.

First as to the *facts*.

They have not *merely* "left off" one of the deflecting plates and both clamps, nor have they converted their machine into an Andrews & Sproat machine. The Andrews & Sproat machine consisted of a circular flanged saw, with no roller feed, and with a deflecting plate on the flange or rounded side *only*.

The defendants retain a deflecting plate *not* on the *flange or rounding* side of the saw, as in the Andrews & Sproat machine, but they place it on the *flat* side of the saw, where it *could not have been used* in the Andrews & Sproat machine. (Phillip's Ev. p. 142, f. 266.) They also set their roller feed in a peculiar manner so as to carry the stuff away from the unprotected side of the saw (p. 143, f. 267,) and give the teeth on that side "the lead," so that the machine cuts a larger "kerf" (id.), and lately, their saw having apparently shaken all to pieces under this method of running it (id.), they have obtained eighteen inch segments (page 116, f. 259 and p. 142, f. 266). Eighteen inch segments are a *late* device of one of these patentees themselves, and greatly relieve the friction and strain on the saw (p. 116, f. 119.) See also Mr. Roff's Ev. p. 64, q. 22, and Philip's Ev. p. 65, q. 14, &c., and p. 67, q. 37–39.)

It is also shown that in addition to these devices for supplying the place of the deflecting plate they have removed, they have also introduced a "spreading wedge" in the rear of the saw. (Renwick's Ev. p. 152.)

It is apparent that the defendants have not "*merely*" altered their saw so as to conform to what was in use previous to the plaintiff's patent, but that they have introduced a large number of

new and *hitherto unknown* combinations and devices for the purpose of supplying the place of *one* of the complainant's deflecting plates. The ingenuity resorted to in this particular to dispense with the patentee's improvements demonstrate how essential they were.

But even with all their ingenuity their machine does not work as well as with the patentee's improvements.

The defendants requested "the Master to find that when the machine so ran, it ran equally as well as when it had two clamps and two deflecting plates."

The Master declined to make such finding. (See 12th exception.)

The Master very properly disbelieved the evidence of the defendants' employees testifying *under the eyes* of *their employer*, (as any one would have done who saw them,) and believed the evidence of his own eyesight.

Now, applying these facts to the rule laid down by this Court in Mowry *v.* Whitney, and notice the result.

In that case it was held that the rule for determining profits of an infringer is:

"What advantage did the defendant derive from "using the complainant's invention over what he "had in using other processes *then open to the pub-*"*lic*, and adequate to enable him to obtain an "*equally beneficial result*. The fruits of that ad-"vantage are his profits."

In this case the defendant asked the Master, and now asks this Court, to compare the profits actually derived by using the patentee's invention, with the

profits which may *now* be derived from using a process *not* "*then* open to the public," and neither *then* nor *now* "adequate to obtain an *equally beneficial* result," for the Master has expressly found as matters of fact, that "no such machine" as that with the profits derived from which they desire to compare their *actual* profit, "was known, or discovered, or open to the public, and that such machine did *not* "run equally as well," &c.

The decision in Mowry *v.* Whitney is expressly and properly limited, so as to have no application to such a case as the present.

The profits of the user of a new invention are the profits he derives by reason of the addition of the patentee's invention to the *then* state of the art, not by reason of its relation abstractly to what *might* have been done. All inventions are in time superseded by others, but because they are so superseded, that is no reason why, while they *are* improvements, the patentee should not be entitled to recover from infringers the benefits derived from using them *as such*.

It matters not whether the new invention comes into existence ten years, or ten days, or one day after the period during which the patentee's invention was used for profit by the infringer; in any case it is unavailable for purposes of comparison.

Again, the result obtained by the process or machine sought to be compared with the patentee's must be "equally beneficial," that is, must produce the same result in *kind* and *quality*. If it does not, it is very obvious that it is impossible to ascertain whether the infringer *would* have obtained any business, or realized any profits at all.

In a state of society where competition is active, the persons who produce the *best* results get substantially *all* of the business. It would be unjust to compare the profits derived from a particular machine with the profits derived from a different and inferior machine, because it could never be ascertained whether, if the inferior machine had been used, an equal, or indeed *any* amount of business would have been done, and because the inferior machine may, and very likely would have been, if run at all, run the cheapest, but it would be monstrous to assume incorrectly that the same amount of work would have been obtained, and then to conclude that the user of the superior machine has made *no profit at all* because *similar* work could have been done cheaper on an inferior machine, when, in fact, the whole work has been obtained by reason of the superiority and the *actual* profits have been realized for same cause.

b. Again, the defendants claimed in the Court below, and may still claim, that though it is true that the modifications of the machine which enabled it to be run without the two deflecting plates were not made until after the period of the accounting closed, yet that it was always *true* that they could be made, and that, though undiscovered, the "capacity" to run in that way always existed in the machine.

This reasoning is, however, most unsound.

All inventions have always from the beginning of things been "true," because the laws by which alone they operate have always been true and the same. It was always a fact, and true, that machinery could be so arranged as to produce an automatic sewing machine, but until Howe did it, it

was to the world as if it had not been true. The invention of the plaintiffs itself was "true" long before they discovered it, and it was always true that resawing machines had the "capacity" to be modified so as to make them successful before the plaintiffs invented those modifications.

That fact does not detract from the merit of the patentee's discovery, and for the same reason the utility of their discovery to the world and to infringers is not lessened, as to the time that has passed, because some one has now found out a way, always true, though unknown, which to some extent enables it to be dispensed with.

c. Again, it was urged in the Court below, and it may be urged that this case is one for an apportionment of the profits.

That the defendants' machine consisted of three great elements which made it what it is, viz: The saw itself, the roller feed and the deflecting plates.

Each, it is said, is essential and no two of them are of any utility for resawing without the other, and that in the same way as the whole profit is due to the use of the deflecting plates, so also the whole profit is also due to the saw and feed.

Hence that there must be an arbitrary apportionment of the profits between the several parts of the machine.

This position is based on misapprehension of the plaintiff's intention. They did not invent the deflecting plates. They invented the combination of all their elements, and the profit which is due to them is the profit on the combination which is the whole machine.

Theoretically considered the profits derived from the use of any machinery, or indeed from the engagement in business of any kind, is due to a multitude of circumstances, whose respective importance are too intricate and subtle to be weighed or judged of.

In this very case, the profit may be due doubtless in some measure, not only on the machine itself, but to the location of the establishment, the skill of the sawyer, the business activity of the proprietor, his good judgment in selection of materials, the light of the establishment, the character of the engine and a multitude of other circumstances.

If all these indirect causes of profit are taken into account, any profits, no matter how large, may be subdivided and refined away. Such subtleties are not, however, in practice considered.

In this case the character of the plaintiff's improvement, and its position and influence in the history of the art of resawing must be taken into consideration.

Now the facts are that the saw was old and well known and had been, at the time of plaintiff's invention, for forty years at least. The roller feed was also old and well known, and the common property of the world. Attempts had been made to use them together and those attempts had altogether failed.

So far as their use together for the purpose of resawing, the saw and the feed were like so much useless and shapeless iron or earth.

Deflecting plates were also equally old. The plaintiff's do not claim to have invented any of the elements separately, but to have been the first to combine them, and so produce a successful organ-

ized machine. Neither element would then by itself be of any use in the defendants' business, and they could have realized no profits from them, except by combining them together, as instructed by the patentees.

The plaintiff's invention took what had previously been useless and gave it vitality and utility. In reason and in fact, therefore, the plaintiff's invention gave the whole utility to the machine and hence is entitled to receive all of the profit.

If, however, the Court should think that any apportionment is proper, it must be an entirely arbitrary one, and may be made by the Court.

d. One point only remains.

Unless the complainants are to be deprived of *all* profit on the ground that the machine patented by them was of *no* utility, they are entitled to the whole profit.

It is hardly to be believed that there can be a decree that no profits have been made by the defendants from the use of a machine pronounced by this Court, in this case, to be of "very great utility;" and the infringement of the patent for which, has been hitherto visited with such large recoveries and penalties.

(Peek *v.* Frame, 9 Blatch. 194).

This disposes of all of the exceptions on the part of the defendants; it remains to consider those of the complainants.

These exceptions are four in number.

1. The *first exception* is to the refusal of the master to allow interest upon the defendant's profits from the termination of each year of the business.

Theoretically considered the profits derived from the use of any machinery, or indeed from the engagement in business of any kind, is due to a multitude of circumstances, whose respective importance are too intricate and subtle to be weighed or judged of.

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1. The *first exception* is to the refusal of the master to allow interest upon the defendant's profits from the termination of each year of the business.

In *Mowry* v. *Whitney*, this Court held that interest would not ordinarily be allowed, but did not deny the propriety of awarding it in some cases.

On the contrary, the right to an allowance of interest in proper cases was expressly affirmed.

The same rule was laid down in

Littlefield *v.* Perry, 21 Wall, 205.

In these cases above cited, however, it was manifest that a lenient rule was to be applied. The defendants were working under patents of their own, and though decreed to be infringers, yet their action had been under a plausible claim of a title of their own.

In this case, however, the defendants are in a different position. They had no patent, they claimed no title, they resisted the patentees, hoping to break down their patent, they had full notice of the complainant's rights, they infringed with full knowledge and took their own risk. In such a case they become amenable to the ordinary rule of equity, that having enjoyed the plaintiff's property they are liable for interest on the profits derived by them from its use.

A suit in equity against an infringer of a patent proceeds on the the theory that the patentee elects to affirm the act of the infringer and treat him as a trustee of his, the patentee's property.

Burdell *vs.* Denning, *supra*.

A trustee, after a reasonable time to invest, is always liable for *simple* interest on the trust funds, and often for compound interest.

a. A trustee is liable for simple interest on the presumption that he has made use of the money, or that he has neglected to invest it.

Green *vs.* Winter, 1 Johns. Ch. 82.
Manning *vs.* Manning, Id. 527.
Sheffelin *vs.* Stewart, 1 Id. 620.

c. A trustee is liable for *compound* interest when he mingles the trust property with his own.

Fay *vs.* Howe, 1 Pick. 527.

or refuses to exhibit his account.

1 Parsons on Cont. 103.

or employs it in trade, or is guilty of any gross delinquency.

Sheffelin *vs.* Stewart, 1 John. Ch. 620.
Evartson *vs.* Tappen, 5 Id. 497.
Raphael *vs.* Boehm, 11 Ves. 592.
" " " 13 Ves. 407–590.
Ashburnham *vs.* Thompson, 13 Id. 402.

The defendant's account show that their gains and expenses are made up yearly, and a balance can be struck and interest allowed on the balance from the close of each year.

II. *The second exception* is to the effect that the master erred in not charging the defendant with the sums received for sawdust made by the infringing saw. This sawdust was a necessary incident to its use, and contributed to the profit from running it by offsetting the expenses, it ought to have been debited to the defendants.

The amount shown by the books Exhibits B and C to have been received from this source by defendants was:

1865	$386 92
1866	549 90
1867	298 25
1868	580 40
1869	412 05

No account appear of receipts in 1863, 1864, 1870 and 1871. These amounts should be added to the decree.

III. *The third exception* is that the master has erred in finding that any part of the sawing accounted for in Exhibits B and C was done by any other saw than the infringing saw. The opposite theory never occurred to the defendant until the last of the case.

The finding of the master on this question of fact is, however, we suppose, conclusive, and in that view is not pressed.

IV. *The fourth exception* is that the master erred in allowing to the defendant any interest on their capital invested in the saw.

An infringer, if he *borrows* money to carry on his business, is to be allowed interest on such money because it is an actual expense, but he is not entitled to invest his money in infringing machinery and have *at all events* lawful interest on it, and be liable only for the excess of profit above lawful interest. If this be the rule the infringer's position is a most favorable one. He has the chance of making great gains, and *in any event* he is entitled to retain the legal rate of interest on his unlawful investment.

Such is not the rule; he is liable for such profit as manufacturers ordinarily estimate profits. Persons in trade do not say that they have made *no* profit because they have only made seven per cent on their investment.

Goodyear *vs.* Rubber Co. 9 Wall, 788, 804.

In any event the defendant should not be allowed $63 per annum for interest on an investment of $300 or $350 (p. 151, f. 283.)

V. *The fifth exception* is that the master erred in allowing for taxes, assessments, &c., which *accrued* during the period of the accounting but were not *paid* until *afterwards*.

The evidence as to these payments were properly ruled out when offered (p. 146, f. 274), and have now been erroneously included.

The defendants can not neglect the payment of these taxes, &c., at the time when they should have been paid, and three years afterwards when they are called to account for the profits made by them *during* the years when they were *not* paid, *then* pay them and charge them against complaint with all their arrearages and penalties for delay.

This concludes all of the exceptions.

V. It is respectfully submitted, therefore, that the decree below should be amended so as to allow the exceptions of the complainants, and so amended, confirmed and a final decree ordered.

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Supreme Court

OF THE UNITED STATES.

No. 123.

JOSHUA DUNBAR and JEREMIAH HOPPER,

vs.

MARGARET MYERS, Executrix, &c.

Supplementary Points in answer to Appellant's Brief.

The brief of the appellant was not filed until a few days since, and hence the respondents' brief had to be compiled without special reference to it.

Since it has been filed the following brief memorandum is submitted to correct certain errors in the appellant's brief.

I. The appellant's err in the statement of the construction of the second claim of the Myers & Eunson patent, under the heading marked "*First*," on page 4.

The correct construction is however given on pages 19 to 22 of former brief, in the words of Judge Blatchford.

II.—There are statements at various points in the brief (see pages 9 and 26-7) to the effect that Roff and Huntington, the manufacturers of the defendant's saw, paid a sum of $1,650 to one Lagowitz and assignee, his claims against them, and that this payment operated as a license to the defendants in this case, and relieved them from the charge of infringement or from any liability for damage.

This whole statement rest on a few loose remarks of Mr. Roff, on the accounting before the master. (See page 136, fol. 256.)

To these remarks there are several conclusive answers:

a. The fact of a settlement having been made by the manufacturers of the machine for damages occasioned to Mr. Lagowitz (who owned certain rights in the state of New Jersey,) by the mere making and selling of such machines in his territory, can not release or effect the defendants, who prior to any such settlement, brought their machine into the territory of the owners of the patent, and there used it to compete with them.

Even if damages occasioned to Lagowitz by the *making* of a machine were settled, he had no right or power to release the entirely *separate* damages occasioned to the plaintiffs by the *using* of the machine in a different territory.

(*b.*) If the defence was a valid one, as claimed by the defendants, its effect would be to bar the plaintiff's right of recovery altogether.

To have any such effect, it should have been pleaded, and any papers relating to have been put in evidence.

"The Court can no more consider what is proved but not alleged, than what is alleged but not proved."

(Judge Swayne, in Blandy *v.* Griffith, 3 Fish. 610, citing numerous cases.)

The fact that no such defence was alluded to, and that no evidence was introduced relating to it prior to the hearing, and that the alleged defence only happened to be mentioned incidentally in the proceedings before the master, shows conclusively that there was nothing in the *real* and *full* facts. If there had been, the remedy would have been by motion to the Court for a re-hearing and liberty to set up the defence in due course.

Nothing of the kind was ever done; no such defence was pleaded; the master was requested to make no finding on the subject; no exception was filed to my lack of finding on the point, and the point is only now urged, based on a few vague sentences, wholly incompetent, as tending to show the alleged recorded proceedings of a Court.

III. The point taken on page 13, that the complainant's patent is void, because it does not on its face state the reasons why *two* deflectors are useful, hardly needs comment.

Patentees are required to describe the mechanical constructions claimed, but not to "puff" their advantages.

Undoubtedly Myers & Eunson originally supposed that *one* deflecting plate would be useful,

so it was, and would be if a roller feed was not used. The patentees supposed they had no right to both combinations.

It turned out, however, that they were entitled only to the more valuable one, that for the combination of the two deflectors with the saw, which was the means of introducing the roller feed into re-sawing.

Where any material or substantial part of the thing patented is truly and justly the patentee's, and definitely distinguishable from the part or combination inadvertently claimed, without right, the law is explicit that the patentee may still recover upon that portion of the patent rightfully claimed.

Act of July 8, 1870, sec. 54.

The evidence quoted on page 14 of the appellant's brief as of Andrew Phillips, the defendants' sawyer, which is intended to prove that there is *no use* in having a deflector on *each side* of the saw, is characteristic of the evidence of this and other witnesses of the defendants.

Not content with attempting to have it believed that two deflecting plates are of *no use*, he actually pretends that one is *better* than two. Such an obvious perversion, it is useless to discuss.

IV. The statement on page 20, relating to the date of the Myers and Eunson's invention, is incorrect, except in the statement that it was commenced in 1851.

The former brief shows that the conception was practically embodied in March, 1851.

Patentees, when their patent is attacked, are entitled to show by the time of making of drawings and models when their invention was made, and, providing they use due diligence in perfecting an

adapting, thereby anticipate subsequent originators.

"The invention is the conception of the idea, not its final development; the law does not mean, by invention, maturity."

(Adams *v.* Edwards, 1 Fisher, 1.)

"The date of the invention is the date of the discovery of the principle involved, and the *attempt* to *embody* that in some machine, not the date of the perfecting of the instrument."

(Colt *v.* Mass. Arms. Co., 1 Fish, 108.)

"If the invention was perfected, or if not perfected, if the inventor used reasonable diligence to perfect it, then he had a right to have it incorporated into his patent, *and to supersede those who had intervened* between his first invention or discovery, and his subsequent taking out of his patent."

(Johnson *v.* Root, 1 Fish, 351.)

"The date of invention is the time when the patentee conceives the idea of doing the thing in substantially the way in which he patents it"

(Woodman *v.* Stimpson, 3 Fish, 98.)

"A patentee, whose patent is assailed upon the ground of want of novelty, may show by sketches and drawings the date of his inceptive invention; and if he has exercised reasonable diligence in perfecting and adapting it, and in applying for his patent, its protection will be carried back to such date."

(Reeves *v.* Keystone Bridge Co., 5 Fish, 456.)

This Court has many times affirmed this rule.

In O'Reilly v. Morse (15 How, 62) that Court considered that Mr. Morse was entitled, in his contest with other alleged inventors, to date his invention from the time he first conceived his idea, in the course of a sea voyage in 1853, though all he did was to explain it to the captain of his vessel.

And in the very recent case of Brown *v.* Guild (6 Off. Gaz., 592.) the inventor was allowed to claim the time of making of his small *model* as the date of his completed invention, so as to anticipate others who were experimenting with *machines*.

The statement in the same connection that Myers & Eunson's caveat of 1852 does not show their patented invention, is also incorrect.

It does show and describe it clearly (see caveat, page 35).

V. The reference to the fact that the complainants also granted licenses to some parties (p. 26), has no bearing on this case.

This suit was brought prior to the Act of 1870.

The patentee, prior to that Act, had the right either to proceed at law for damages, in which case the price of a license would be the measure of damages in case there was any established license fee, or he might elect to treat the infringer as a trustee of the profits, and sue in equity, for an account, in which case the rule would be the gains which the defendants had derived.

Burdell *v.* Denig, Supreme Court, May 8, 1876.

These two separate rules of recovery are not to be mixed or confounded.

License fees are not to be treated as the rule of recovery on accountings in equity (except under the act of 1870, which allows *both* profits and damages to be recovered), and profits are not to be awarded in actions at law.

This was a suit in equity and the rule adopting profits was properly applied.

In any event the defendants can not be heard to object here.

They asked the master to make no finding on the subject, and filed no exception to any lack of finding, and have never asked at any time to have the price of a license awarded.

If they had it would not vary materially from the amount awarded. The complainants only granted licenses in localities were they could not use the invention themselves. The price of licenses varied with the amount of business done and character of the machine used. These defendants were the kings of all infringers, and had used a larger machine, done more business and been running for a longer time than any one else.

A word may be said in answer to the addition lately made to the appellant's brief upon a fly-leaf, commencing, "In the statement of the patentees on their application for extension (pp. 91, 92,) they say".

The appellants there quote a *portion* of the statement, referring to the value of only *one* of the patentee's claims, and infer from it that the value of *all* the patented improvements to the defendants was only $1,300. This method of dealing with the case is likely to mislead.

The remaining portion of the *same* statement of the patentees (which is not quoted) shows that the value of the *other* principal claims would, under some circumstances, be $5 00 per thousand feet of lumber, or over $38,950 00 on the amount of stuff re-sawed by the defendants.

If the theory of profits suggested by this statement was adopted (as seems to be desired), the amount of recovery against the defendants would be over $40,000 00, instead of a little over $9,000.

This method of computation was, however, not appropriate, because the character of the defendant's business in this case was not the same as that suggested in the "statement." They made ordinary dry goods packing boxes, which, as the court knows, are roughly made, and did not cut fine work; which was the basis of value under the head "1st" in the "statement" (p. 90). The profit of the present defendants was caused by the fact that their saw was of such a character that it *could not be run* at all practically without the use of the deflecting plates. This brought the basis of computation of the value to the defendant's, under the head "2d" of the same statement, (p. 91,) under which, after detailing reasons, the patentees say, (as they have always consistently claimed,) "*the deflecting plates, therefore introduced into the art of re-sawing the circular saw, to*"

In common justice, all notice of these parts of the statement ought not to have been omitted from the appellant's brief.

It may, perhaps, be further mentioned that the Throckmorton patent, which is now produced and referred to in the appellant's brief, was *not named in the defendant's answer*, and was never put in evidence, prior to the hearing on the merits.

It was only introduced upon the hearing *before the master;* no motion to amend the pleadings, so as to take advantage of it, was ever made.

The reason is obvious. It shows no deflecting plates, and no clamps, or any other feature of the patentee's claims.

The sawing part of the machine, except for the occasional trimming off of an uneven board during the process of "planing, tonguing and grooving," was plainly impracticable, as is *uncontradictedly* proven by Mr. Emerson (p. 119). It is not pretended that it was ever used, and, as already shown, the uniform and uncontradicted evidence of all witnesses is, that without deflectors a circular saw cannot be used for practical re-sawing.

No particular stress is, however, laid upon this patent in appellant's brief, and it is, therefore, not considered in detail.

Throckmorton himself took a license from Rogers Emerson (6124)

It is within the knowledge of the present counsel for the appellants that the defendants, Frame, Nichols and Robins, who were defended by the same counsel, paid a much larger amount than the sum awarded by the master in this case, and have never appealed.

For other points in answer to the positions taken by appellants, the respondents respectfully refer to the brief already filed.

All of which is respectfully submitted.

FREDERDIC H. BETTS,
Counsel for Respondents.

Circuit Court of the United States.

FOR THE NORTHERN DISTRICT OF ILLINOIS.

WEDNESDAY, July 2, 1873.

Present—*The Hon.* THOMAS DRUMMOND, *Circuit Judge.*

ISAAC W. BARNUM
vs.
HERMAN B. GOODRICH. } *In Chancery.*

And now, at this day come as well the said complainant as the said defendant, by their counsel respectively, and the information and motion of the defendant, heretofore filed herein—that is to say, that the said complainant, Isaac W. Barnum, had filed a bill in the Circuit Court of the United States, for the Southern District of New York, against the Remington Empire Sewing Machine Company *et al.*, and also against the Wilson Sewing Machine Company, for an alleged infringement of the Letters Patent, whose alleged infringement is likewise the subject of controversy in the pending suit. Said alleged infringement on the part of the said Remington Empire Sewlng Machine Company, *et. al.*, and the Wilson Sewing Machine Company, consisting of the sale by them respectively, of the tuckers made by defendant under his Letters Patent, and which tuckers were purchased by said Remington Empire Sewing Machine Company and the Wilson Sewing Machine Company respectively, of and from the

defendant herein, the said tuckers being manufactured in the City of Chicago, Illinois, by the respondent herein, and moving the Court upon such information to restrain said Issac W. Barnum from proceeding any further in the prosecution of his said suits against the vendees of the said respondent herein, the said Remington Empire Sewing Machine Company *et al.* and the Wilson Sewing Machine Company, or from prosecuting any other suits anywhere against venders of respondent's tuck markers, which are manufactured in the City of Chicago, Illinois, by respondent, accounted for to this Court, and sold to other persons to resell, and the said motion now coming on to be heard upon motion, notice thereof to complainant's counsel and affidavit; and after argument of counsel thereupon, the Court being fully advised in the premises, both

Order, That the said Isaac W. Barnum be restrained and barred from further prosecuting his said suits, now depending and undetermined in the Circuit Court of the United States, for the Southern District of New York, wherein the said Isaac W. Barnum is complainant, and the Remington Empire Sewing Machine Co., *et al.*, and the Wilson Sewing Machine Company are respondents respectively.

And that the said Isaac W. Barnum do not, by himself, his agent, attorney or assigns, take any further measure or action in the said suits during the pendency of the suit in this Court, or, until the further order of this Court; and that the said Isaac W. Barnum and Henry W. Fuller be restrained and barred from commencing any suit or prosecuting any suit which may be commenced by them, or either of them, against any vendee of the respondents herein for any alleged infringement of Letters Patent of said Henry W. Fuller, specified in the bill herein filed, based upon a sale or uses of the tuck markers of respondent, by his vendees anywhere, which are made by respondent in the City of Chicago, and which are alleged to be

an infringement of the tuck markers secured by Letters Patent, and belonging to complainant, and which are the subject of account and report to this Court by respondent from month to month, under the special order of this Court, of date May 19, 1873. Provided that this order shall not prevent said complainants, or either of them, from prosecuting the above-named or any other suits for the manufacture, use or sale of any such tuckers made elsewhere than at said Chicago; nor for any other tuckers which may be deemed to infringe the patents of said complainant.

Northern District of Illinois, ss:

I, WILLIAM H. BRADLEY, Clerk of the Circuit Court of the United States, for said Northern District of Illinois, do hereby certify the above and foregoing to be a true and correct copy of the decretal order entered of record in said Court, on the second day of July, A. D. 1873, in the cause wherein Isaac W. Barnum is the complainant and Herman B. Goodrich is the defendant, as the same appears from the records of the said Court now remaining in my custody and control.

In testimony whereof I have hereunto set my hand and affixed the seal of said Court, [SEAL.] at my office in Chicago, in said District, this seventh day July, A. D., 1873.

W. H. BRADLEY,
Clerk.